

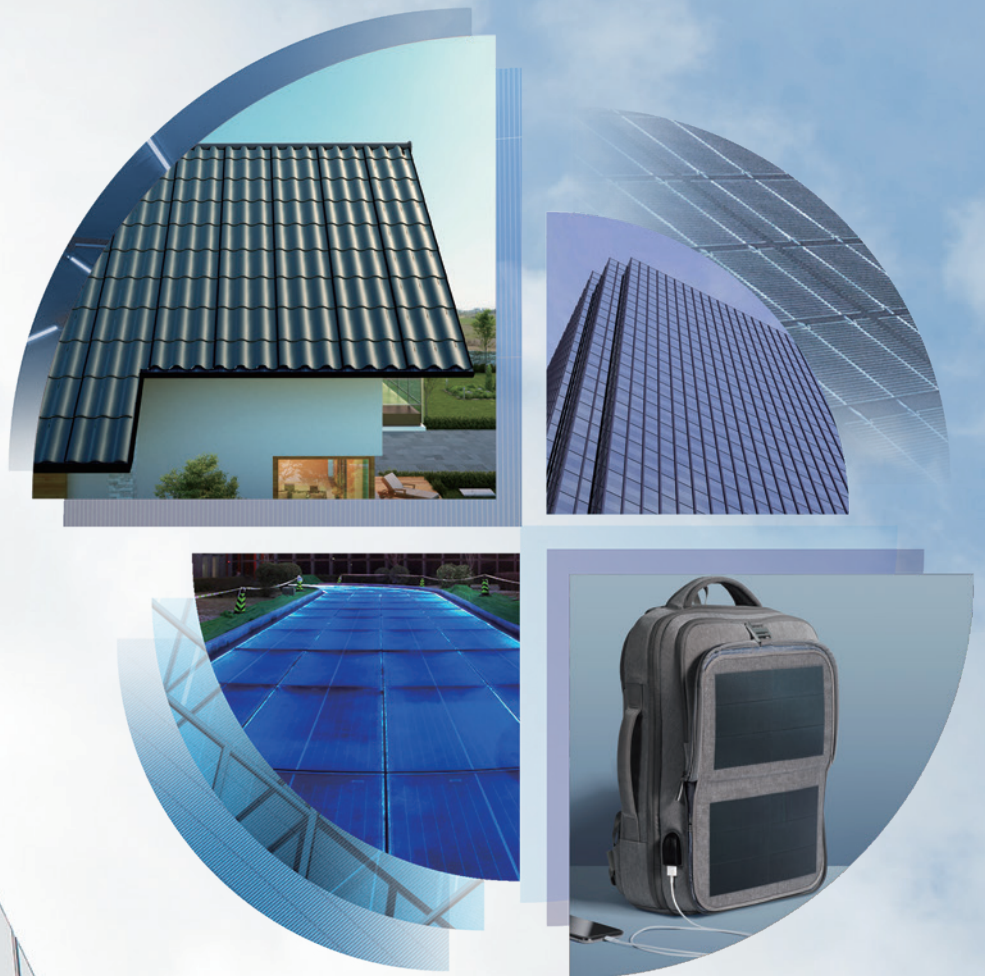
HANERGY THIN FILM POWER GROUP LIMITED
漢能薄膜發電集團有限公司

(Incorporated in Bermuda with limited liability)

(於百慕達註冊成立之有限公司)

(Stock Code 股份代號: 566)

2018 Annual Report 年報



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CORPORATE INFORMATION

公司資料

EXECUTIVE DIRECTORS

Mr. Yuan Yabin (*Chairman*)
Dr. Lam Yat Ming Eddie (*Vice Chairman*)
Mr. Si Haijian (*Chief Executive Officer*)
Mr. Huang Songchun (*Financial Controller*)
Mr. Xu Xiaohua
Mr. Zhang Bin

INDEPENDENT NON-EXECUTIVE DIRECTORS

Mr. Lo Man Tuen, *G.B.S., JP*
Professor He Xiaofeng
Professor Zhang Qiusheng
Mr. Wang Dan

AUDIT COMMITTEE

Professor Zhang Qiusheng (*Chairperson*)
Mr. Lo Man Tuen, *G.B.S., JP*
Professor He Xiaofeng
Mr. Wang Dan

REMUNERATION COMMITTEE

Professor He Xiaofeng (*Chairperson*)
Mr. Lo Man Tuen, *G.B.S., JP*
Professor Zhang Qiusheng
Mr. Wang Dan

NOMINATION COMMITTEE

Mr. Lo Man Tuen, *G.B.S., JP* (*Chairperson*)
Professor He Xiaofeng
Professor Zhang Qiusheng
Mr. Wang Dan

COMPANY SECRETARY

Ms. Lee Wai Yee

AUDITORS

Ernst & Young

執行董事

袁亞彬先生 (*主席*)
林一鳴博士 (*副主席*)
司海健先生 (*首席執行官*)
黃松春先生 (*財務總監*)
徐曉華先生
張彬先生

獨立非執行董事

盧文端先生 · *G.B.S., 太平紳士*
何小鋒教授
張秋生教授
王丹先生

審核委員會

張秋生教授 (*主席*)
盧文端先生 · *G.B.S., 太平紳士*
何小鋒教授
王丹先生

薪酬委員會

何小鋒教授 (*主席*)
盧文端先生 · *G.B.S., 太平紳士*
張秋生教授
王丹先生

提名委員會

盧文端先生 · *G.B.S., 太平紳士* (*主席*)
何小鋒教授
張秋生教授
王丹先生

公司秘書

李慧兒女士

核數師

安永會計師事務所

CORPORATE INFORMATION

公司資料

PRINCIPAL BANKERS

Bank of Communications (Hong Kong) Limited
Industrial and Commercial Bank of China Limited
Industrial Bank Co., Ltd.
China Construction Bank Corporation
China Merchants Bank
Bank of China
Bank of Jinzhou
ABN AMRO

REGISTERED OFFICE

Clarendon House
2 Church Street
Hamilton HM 11
Bermuda

HEAD OFFICE AND PRINCIPAL PLACE OF BUSINESS

Room 2204-06, 22/F, World Trade Centre
280 Gloucester Road
Causeway Bay, Hong Kong

PRINCIPAL SHARE REGISTRAR AND TRANSFER OFFICE

MUFG Fund Services (Bermuda) Limited
26 Burnaby Street
Hamilton HM11
Bermuda

BRANCH SHARE REGISTRAR AND TRANSFER OFFICE IN HONG KONG

Tricor Tengis Limited
Level 22, Hopewell Centre
183 Queen's Road East
Wanchai
Hong Kong

STOCK CODE

566

WEBSITE

www.hanergythinfilmpower.com

主要往來銀行

交通銀行(香港)有限公司
中國工商銀行股份有限公司
興業銀行股份有限公司
中國建設銀行
招商銀行
中國銀行
錦州銀行
荷蘭銀行

註冊辦事處

Clarendon House
2 Church Street
Hamilton HM 11
Bermuda

總辦事處及主要營業地點

香港銅鑼灣
告士打道280號
世貿中心22樓2204-06室

股份過戶及登記總處

MUFG Fund Services (Bermuda) Limited
26 Burnaby Street
Hamilton HM11
Bermuda

股份過戶及登記香港分處

卓佳登捷時有限公司
香港
灣仔
皇后大道東183號
合和中心22樓

股份代號

566

網址

www.hanergythinfilmpower.com



CHAIRMAN'S STATEMENT

主席報告

Dear Shareholders,

On behalf of the Board of Directors of Hanergy Thin Film Power Group Limited (the "Company"; together with its subsidiaries, the "Group"), I would like to present the annual results of the Company for the year ended 31 December 2018.

The year 2018 saw significant changes in the global energy structure and rapid development of the thin film solar industry. As a leader in the global thin-film solar industry, by capturing opportunities and forging ahead, the Group achieved remarkable results in all aspects, and its market competitiveness was greatly improved during the year, with an explosive growth in its annual results that had never been seen. For the financial year ended 31 December 2018, the Group achieved revenue of HK\$21,251,772,000, representing a year-on-year increase of approximately 2.5 times, and net profit of HK\$5,193,068,000, representing a year-on-year increase of approximately 18.9 times.

PROGRESS IN RESUMPTION OF TRADING

During the year, the Company made every effort to communicate with the Securities and Futures Commission ("SFC"). After the Company fulfilled the SFC's first resumption requirement on 4 September 2017, according to the SFC's second resumption requirement, the Company engaged a financial adviser to conduct due diligence on the Group, and completed the Disclosure Document and submitted to the SFC for approval, for the consideration of the SFC in regards to the Company's application for the resumption pursuant to Rule 9 of the Securities and Futures (Stock Market Listing) Rules (Chapter 571V of the Laws of Hong Kong).

The Company will further make separate announcement(s) on the progress of the resumption in due course, to inform the Company's shareholders and potential investors.

致各位尊敬的股東：

本人謹代表漢能薄膜發電集團有限公司（「本公司」，連同其附屬公司統稱「本集團」）董事會同仁，向各位股東呈上截至二零一八年十二月三十一日止年度之業績。

二零一八年是全球能源結構深刻變革、薄膜太陽能行業高速發展的一年。作為全球薄膜太陽能行業的領導者，本集團於年內抓住機遇，開拓進取，各項工作均取得了顯著成效，市場競爭力得到了大幅提升，全年業績實現了前所未有的爆發式增長。截至二零一八年十二月三十一日止財政年度，本集團實現收入21,251,772,000港元，同比增長約2.5倍；實現淨利5,193,068,000港元，同比增長約18.9倍。

復牌工作進展

年內，本公司竭盡全力與證券及期貨事務監察委員會（「證監會」）溝通，在二零一七年九月四日完成證監會提出的第一個復牌必要條件的基礎上，繼續按證監會提出的第二個復牌必要條件的要求，委聘財務顧問對本集團進行盡職調查，完成了披露文件並提交到證監會審批，以便證監會根據證券及期貨（在證券市場上市）規則（香港法例第571V章）第9條，作為考慮對本公司之復牌申請。

本公司將繼續根據復牌工作之進展，於適當時候另行刊登發佈，以知會本公司股東及潛在投資者。

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PROPOSED WITHDRAWAL OF THE LISTING OF SHARES OF THE COMPANY ON THE STOCK EXCHANGE

On 1 November 2018, the Company announced that Hanergy Mobile Energy Holding Group Co., Ltd., the controlling shareholder, proposed to privatize the shares of the Company. As advised by the controlling shareholder, the proposal in relation to the privatization of shares of the Company is made in view of the market changes and business needs.

On 26 February 2019, the board of directors of the Company (the "Board") and the board of directors of Hanergy Mobile Energy Holding Group Co., Ltd. (the "Offeror") jointly announced that, on 21 December 2018, the Offeror requested the Board to put forward to the scheme shareholders a proposal in respect of the securities of the Company by way of a scheme of arrangement under Section 99 of the Bermuda Companies Act and proposed withdrawal of the listing of shares of the Company on the Stock Exchange. The proposal, if made, will provide that all the scheme shares be cancelled and the cancellation consideration will be satisfied by way of SPV's shares. The scheme shareholders will be entitled to receive the cancellation consideration on the following basis: one SPV's share for each scheme share. As it is highly uncertain whether trading in the shares of the Company can be resumed before the end of July 2019 which is a deadline applied to the Company under Rule 6.01A(2)(b) of the Listing Rules, the proposal provides a possible way for the independent shareholders to unlock the value in their shares. The ultimate objective of the proposal is to pave the way for the businesses of the Company to be put under a company to be listed on a stock exchange in the PRC, and therefore it is expected that the independent shareholders may eventually obtain cash from the disposal of A-Share Listco Shares by SPV after the completion of the proposal. To this end, an independent board committee, which comprises the independent non-executive directors of the Company, Mr. Lo Man Tuen, Professor He Xiaofeng, Professor Zhang Qiusheng and Mr. Wang Dan, has been established.

擬撤回本公司股份於聯交所之上市地位

二零一八年十一月一日，本公司公告收到控股股東漢能移動能源控股集團有限公司就本公司股份私有化的提議。控股股東表示，由於市場環境變化及經營需要，提出對本公司股份進行私有化的提議方案。

二零一九年二月二十六日，本公司董事會與漢能移動能源控股集團有限公司（「要約人」）董事會發佈聯合公告，於二零一八年十二月二十一日，要約人要求董事會向計劃股東就本公司之證券提出根據百慕達公司法第99條以計劃安排方式對本公司進行提議及擬撤回本公司股份於聯交所之上市地位。提議（倘作出）將規定所有計劃股份須予註銷，註銷代價將透過特殊目的公司股份之方式支付，計劃股東將有權在以下基礎之上獲得註銷代價，即：每股計劃股份置換一股特殊目的公司股份。因本公司股份可否於二零一九年七月底（根據上市規則第6.01A(2)(b)條適用於本公司之期限）前復牌存在高度不確定性，提議為獨立股東提供可行之解決方法，讓彼等得以將股份之價值解封。提議之最終目的乃將本公司業務安排於一間擬於中國之證券交易所上市之公司旗下，因此，預期於提議完成後，獨立股東最終或可因特殊目的公司處置A股上市公司股份而獲取現金。為此，本公司已成立獨立董事委員會，由本公司的獨立非執行董事即盧文端先生、何小鋒教授、張秋生教授及王丹先生組成。



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On 27 February 2019, the Board of the Company announced that TC Capital International Limited ("TC Capital"), upon the approval of the independent board committee, has been appointed as the independent financial adviser of the Company to advise the independent board committee on matters in connection with the proposal.

DEVELOPMENT TREND OF SOLAR ENERGY INDUSTRY

The global energy structure has undergone significant changes, and the solar energy power industry has continued to grow steadily

Currently, facing the severe challenges of exhausting fossil energy and global warming, it has been the common consensus and unanimous action of the countries all over the world to aggressively develop renewable energy to replace traditional fossil energy so as to achieve energy transformation and low-carbon development. Renewable energy has therefore gained strong support and achieved rapid development around the world.

As an integral part of renewable energy, solar energy has continued to grow steadily around the world in recent years. According to the statistics of Energy Trend, an international market research institution, the global newly installed capacity of solar reached 103GW in 2018, with the cumulative installed capacity of more than 500GW. In 2019, the global solar PV market is expected to continue to grow. According to the research institutions such as Energy Trend, HIS and PV Info Link, the newly installed capacity of PV is estimated to exceed 110GW in 2019.

二零一九年二月二十七日，本公司董事會宣佈，天財資本國際有限公司（「天財資本」）經獨立董事委員會批准已獲委任為本公司之獨立財務顧問，以就與提議有關之事宜向獨立董事委員會提供意見。

太陽能行業發展趨勢

全球能源結構深刻變革，太陽能發電行業持續穩定增長

當前，全球正面臨化石能源日益衰竭、全球氣候變暖的嚴峻挑戰，大力發展可再生能源以替代傳統化石能源，實現能源轉型與低碳發展，成為全球各國的普遍共識和一致行動。可再生能源因此在全球獲得了大力扶持和迅速發展。

太陽能發電作為可再生能源的一個重要組成部分，近年來在全球持續穩定增長。根據國際市場研究機構Energy Trend的統計，二零一八年全球太陽能光伏新增裝機規模達到103GW，累計裝機規模超過500GW。二零一九年，全球太陽能光伏市場預計仍將保持增長，Energy Trend、IHS、PV Info Link等多家機構預測的二零一九年新增光伏裝機規模都超過110GW。

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With the acceleration of grid parity for global solar power generation, the times when there is no subsidy are coming

The global solar power generation industry had long been relying on subsidies and support from governments due to high power generation cost as it did not qualify for grid parity. However, with the technology advancement and economies of scale of the solar energy industry, as well as the policy of reducing subsidies and competitive tariff bidding for solar power generation implemented by major countries around the world, the cost of solar power generation has sharply declined. Currently, solar power generation has achieved grid parity in some countries and regions in Europe, the Americas, the Middle East and Asia Pacific.

In China, the "13th Five-Year Plan for the Development of Solar Energy Industry" issued by National Energy Administration in December 2016 specified that the goal of grid parity in terms of power consumption would be achieved by 2020. On 31 May 2018, the "Notice on Matters Related to Photovoltaic Power Generation in 2018" was jointly issued by the National Development and Reform Commission of the PRC, the Ministry of Finance, and the National Energy Administration, which clearly stated that "encouraging local governments to support the development of photovoltaic industry in accordance with their respective policies substantially enacted, and arranging their own photovoltaic power generation projects that do not need national subsidies according to the requirements for grid connection and market consumption and other relevant requirements".

全球太陽能發電平價上網進程加速，無補貼時代開啟

長期以來，全球太陽能發電行業因較高的發電成本，其發展依賴各國政府的補貼與扶持，太陽能發電不具備平價上網的條件。然而，隨著太陽能行業的技術進步和規模經濟，以及全球各主要國家陸續實施太陽能發電的補貼退坡、競價上網制度，太陽能發電成本迅速降低。目前，太陽能發電已在歐洲、美洲、中東、亞太的部分國家和地區實現平價上網。

在中國，國家能源局在二零一六年十二月發佈的《太陽能發展「十三五」規劃》中，明確提出了到二零二零年實現用電側平價上網的目標。二零一八年五月三十一日，中國國家發展改革委、財政部、國家能源局發佈《關於2018年光伏發電有關事項的通知》，明確「鼓勵各地根據各自實際出台政策支持光伏產業發展，根據接網消納條件和相關要求自行安排各類不需要國家補貼的光伏發電項目」。



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On 7 January 2019, the National Development and Reform Commission and the National Energy Administration jointly issued the “Notice on Actively Promoting Grid Parity for Unsubsidized Wind Power and Solar Power Generation Projects” (關於積極推進風電、光伏發電無補貼平價上網有關工作的通知), stating that solar power generation “has substantially qualified for parity with the benchmark on-grid tariff of coal-fired power (without national subsidies) in the areas with excellent resources, low construction costs and good investment and market conditions”; and requiring local governments to “advance the construction of pilot projects of wind power and solar power generation grid parity with the benchmark on-grid tariff of coal-fired power that do not need national subsidies, in line with their resources, consumption and new technology applications”. Since then, the grid parity of solar power generation in China has accelerated, and the times when there is no subsidy are coming.

The times of mobile energy focusing on thin film solar technology are coming with promising future in the industry

With the significant advantages of lightness, thinness, flexibility, good performance in power generation under weak light conditions, high sunlight-to-electricity conversion efficiency and etc., thin-film solar technology empowers everything by closely integrating with all industries, so as not to rely on traditional energies and power grids, and thus is a core technology of mobile energy.

Currently, since the thin-film solar technology has matured and equipped with large-scale industrialization conditions, it has been successfully applied in many sectors including BIPV, aerospace, transportation, outdoor supplies, consumer electronics and military-civilian integration. On 11 April 2018, the Ministry of Industry and Information Technology, the Ministry of Housing and Urban-Rural Development, the Ministry of Transport, the Ministry of Agriculture and Rural Affairs, the National Energy Administration and the State Council Poverty Alleviation Office jointly issued the “Action Plan for the Development of Intelligent Photovoltaic Industry (2018-2020)” (《智能光伏產業發展行動計劃 (2018-2020年)》), clearly requiring to

二零一九年一月七日，國家發展改革委、國家能源局發佈《關於積極推進風電、光伏發電無補貼平價上網有關工作的通知》，宣佈光伏發電「在資源優良、建設成本低、投資和市場條件好的地區，已基本具備與燃煤標桿上網電價平價（不需要國家補貼）的條件」，要求各地區要「結合資源、消納和新技術應用等條件，推進建設不需要國家補貼執行燃煤標桿上網電價的風電、光伏發電平價上網試點項目」。中國太陽能發電平價上網進程自此加速，無補貼時代開啟。

以薄膜太陽能技術為核心的移動能源時代全面到來，行業前景看好

薄膜太陽能技術具有輕、薄、柔、弱光發電性好、光電轉換率高等顯著優勢，能與各行各業緊密結合，賦予萬物以發電功能，擺脫對傳統能源及電網的依賴，是移動能源的核心技術。

目前，薄膜太陽能技術已經成熟，具備了大規模產業化條件，並成功應用於光伏建築一體化、航空航天、交通工具、戶外用品、消費電子、軍民融合等眾多領域。二零一八年四月十一日，中國工業和信息化部、住房和城鄉建設部、交通運輸部、農業農村部、國家能源局和國務院扶貧辦六部門聯合印發《智能光伏產業發展行動計劃 (2018-2020年)》，明確要「推

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"promote the combination of advanced photovoltaic products with consumer electronics, outdoor products, vehicles, aerospace, military and defense, etc., and encourage the development of various mobile products such as solar energy charging bags, backpacks, clothing, solar powered drones and fast-charging power stations". The introduction of such policy will certainly advance the wide application of thin film solar technology and products in the mobile energy sector.

On 28 May 2018, at the 12th (2018) International Solar and Intelligent Energy Forum of SNEC, the first Global Mobile Energy Conference was successfully held, at which experts, scholars, government officials and business representatives from various countries around the world were present. The global mobile energy industry is growing rapidly, and the times when mobile energy powers everything is coming.

In particular, with the acceleration of grid parity of global solar energy power generation and in the times of non-subsidy, mobile energy applications without grid connection and subsidies will usher in significant development opportunities that we have never seen before, thus driving the explosive growth of the thin film solar industry. According to the estimates of Accenture, the annual marketable size for global thin-film solar products will exceed RMB110 trillion by 2020.

動先進光伏產品與消費電子、戶外產品、交通工具、航空航天、軍事國防等結合，鼓勵發展太陽能充電包、背包、衣物、太陽能無人機、快裝电站等豐富多樣的移動產品」。該政策的出台，必將有力促進薄膜太陽能技術及產品在移動能源領域的廣泛應用。

二零一八年五月二十八日，首屆全球移動能源大會在SNEC第十二屆(2018)國際太陽能光伏與智慧能源論壇上順利召開，來自全球多個國家的專家學者、政府官員、企業代表等出席了此次大會。全球移動能源產業正迅速發展壯大，萬物發電的移動能源時代全面到來。

特別是在當前全球太陽能發電平價上網進程加速、無補貼時代開啟的背景下，無需併網和補貼的移動能源應用將迎來前所未有的重大發展機遇，並由此帶動薄膜太陽能行業的爆發式增長。根據埃森哲的預測，到二零二零年，全球薄膜太陽能產品的年度可開發市場規模將達到人民幣110萬億元。



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2018 BUSINESS REVIEW OF THE GROUP

The thin-film solar technology outperforms the world, leading the industry in terms of the number and quality of patents

During the year, the Group maintained a leading position in several technology lines of copper indium gallium selenide (CIGS) and gallium arsenide (GaAs) in the world. In particular, the conversion efficiency of the effective area of CIGS Solibro's glass-based modules, the lab efficiency of CIGS MiaSole's flexible cells and the lab efficiency of CIGS GSE's flexible cells of the Group reached 18.72%, 19.4% and 19.3%, respectively, all of which were at the leading level in the world. The lab efficiency of GaAs single junction cells reached 29.1%, and the efficiency of single junction modules reached 25.1%, hitting the world record of conversion efficiency of GaAs single junction cells and single junction modules respectively. In addition, the lab efficiency of the Group's high efficiency silicon heterojunction (SHJ) cells also recorded a new high of 24.23% during the year and it obtained JET certification in Japan. Among the eight records of the highest conversion efficiency of solar cells in China issued by the Chinese Renewable Energy Society's Photovoltaic Professional Committee in 2018, the Group held four records of CIGS cells, GaAs single junction cells, GaAs double junction cells and SHJ cells, accounting for a half of the highest conversion efficiency records of cells in China.

With its strong research and development capabilities and technology strengths, the number and quality of the Group's patents were also at the leading level in the industry. As at 31 December 2018, the Group's patent applications exceeded 5,000 in aggregate. On 16 December 2018, the Group was granted the "China's Patent" award for its patent "an atomization device for production of alloy metal powder" at the "China's Patent" Awards Presentation Ceremony of the Bank of Communications Cup 2018, which was jointly organized by the SIPOP and the China Intellectual Property Development Alliance.

本集團2018年業務回顧

薄膜太陽能技術領跑全球，專利數量和質量業內領先

年內，本集團在銅銦鎵硒(CIGS)、砷化鎵(GaAs)的多條技術路線上均保持全球技術領先地位。本集團的銅銦鎵硒Solibro玻璃基組件有效面積轉換效率達到18.72%，銅銦鎵硒MiaSole柔性電池研發效率達到19.4%，銅銦鎵硒GSE柔性電池研發效率達到19.3%，均處於全球領先水平；砷化鎵單結電池研發效率達到29.1%、單結組件效率達到25.1%，分別為砷化鎵單結電池、單結組件的世界轉換效率紀錄。此外，本集團的高效硅異質結(SHJ)電池研發效率亦於年內再創新高，達到24.23%，並獲得日本JET認證。在中國可再生能源學會光伏專業委員會2018年發佈的八項太陽能電池中國最高轉換效率紀錄中，本集團獨佔了銅銦鎵硒電池、砷化鎵單結電池、砷化鎵雙結電池、高效硅異質結電池四項紀錄，佔據了中國最高電池轉換效率紀錄的半壁江山。

得益於本集團強大的研發能力和技術實力，本集團的專利數量和質量亦達到業內領先水平。截至二零一八年十二月三十一日，本集團的專利申請累計突破5000件。二零一八年十二月十六日，在國家知識產權運營公共服務平台聯合中國知識產權發展聯盟共同主辦的2018年交通銀行杯「中國好專利」頒獎盛典上，本集團的專利《一種制備合金金屬粉末的霧化裝置》獲頒「中國好專利」獎項。

CHAIRMAN'S STATEMENT

主席報告

Significant progress has been made in the research and development as well as localization of equipment production lines, and the industrialization of the packaging production line of HanTile has been completed

During the year, the Group actively promoted the research and development as well as localization of thin-film solar equipment production lines, especially core equipment, and continued to improve the capability to deliver and competitiveness of thin-film solar production line solutions. As at 31 December 2018, the Group has completed the manufacturing and assembly of Coater equipment of CIGS Solibro's production line and assembly of RC equipment of CIGS MiaSole's production line, as well as completed the independent research and development of packaging equipment of CIGS GSE's production line and PECVD equipment of high-efficiency silicon heterojunction SHJ production line. As the Group's capability to deliver production lines has been significantly improved during the year, several production line projects in the delivery pipeline are being put into production step by step as scheduled.

In addition, the Group also completed the design and development of the packaging production lines of Solibro's Hanwall and GSE's HanTile and the industrialization of the packaging production line of MiaSole's HanTile during the year.

Since five types of products were marketed in bulk and well received, our product innovation capabilities have been highly recognized in the industry

During the year, our five types of products, namely HanTile, Hanwall, HanPack, HanPaper and Humbrella, were marketed in bulk and well received by the market, with supply falling short of demand.

裝備產線研發和國產化取得重大進展，漢瓦封裝線實現產業化交付

本集團於年內積極推進薄膜太陽能裝備產線尤其是核心設備的研發和國產化，持續提升薄膜太陽能產線解決方案的交付能力和競爭力。截至二零一八年十二月三十一日，本集團已在國內實現銅銦鎵硒Solibro產線Coater設備的製造和組裝、銅銦鎵硒MiaSole產線RC設備的組裝，並實現了銅銦鎵硒GSE產線封裝設備、高效硅異質結SHJ產線PECVD設備的自主研發。本集團的產線交付能力於年內實現了大幅提升，交付管道中多個產線項目正按計劃逐步貫通投產。

同時，本集團的Solibro漢牆封裝線、GSE漢瓦封裝線亦於年內完成設計開發，MiaSole漢瓦封裝線則實現了產業化配套交付。

五類產品批量上市熱銷，產品創新能力獲業內高度認可

年內，本集團的漢瓦、漢牆、漢包、漢紙、漢傘五類產品批量上市，市場反響強烈，產品供不應求。



CHAIRMAN'S STATEMENT

主席報告

On 15 April 2018, the Group held a press conference for a new product “HanTile” series in Beijing. Following the introduction of pioneering double-glass triple-curved tiles last year, the Group has further launched a series of innovative products, including single-glass triple-curved tiles, colored HanTile and tubular tiles, realizing a perfect combination of thin film solar technology and architecture, thus enabling each house to generate power with “zero energy consumption”.

On 27 April, the Group held a ceremony to launch 2018 Umbrella community project of Hanergy “Lighting Africa” in Beijing, at which the Group released the new thin film solar energy product “Umbrella”. The product adopts the form of an ordinary umbrella, featuring four major functions of off-grid power supply, power storage, lighting at night and terminal charging, to fulfill the basic electricity demands in the regions with power supply difficulty, especially in Africa.

On 13 June, the Group released a series of new consumer electronics including HanPack and HanPaper at CES Asia 2018 in Shanghai, demonstrating to the world the perfect integration of mobile energy with consumer electronics, which addresses charging concerns and makes it possible that “electricity is available as long as in the sun”.

On 29 September, the Group held a global press conference for a new thin film solar product “HanWall” at the main venue in Beijing and in six parallel sessions in Los Angeles in the USA, Sao Paulo in Brazil, Tokyo in Japan, and etc. This product innovatively “implants” the cutting-edge thin-film solar technology into glass to turn ordinary glass into new high-tech green power generation building materials, thus enabling each wall to generate electricity and turning each building into a green power station.

二零一八年四月十五日，本集團在北京舉辦「漢瓦」系列新品發佈會，繼去年發佈顛覆性的雙玻三曲瓦後，再次推出承古耀今的單玻三曲瓦、彩色漢瓦、筒瓦等創新性新品，實現了薄膜太陽能技術與建築的完美結合，並使每一棟房子都成為「零能耗」的發電站。

四月二十七日，本集團在北京舉辦「點亮非洲」漢能2018漢傘公益項目啟動會，會上同時發佈了本集團的薄膜太陽能新品——「漢傘」。該產品以普通遮陽傘的形式，集離網供電、儲電、夜間照明、終端充電4大功能於一體，能夠很好地滿足電力供應困難地區尤其是非洲國家的基本用電需求。

六月十三日，本集團在2018上海CES Asia（亞洲消費電子展）上發佈了漢包、漢紙等全系消費電子新品，向全球用戶展現了移動能源與消費電子的完美結合，很好地解決了用戶的充電焦慮，使「有太陽就有電」成為可能。

九月二十九日，本集團在北京主會場和美國洛杉磯、巴西聖保羅、日本東京等六大分會場同期舉行薄膜太陽能新品——「漢牆」全球發佈會。該產品創造性地將全球領先的薄膜太陽能技術「植入」玻璃中，使普通玻璃變身為高科技新型綠色發電建材，讓每一面牆成為會發電的牆，讓每一棟建築成為綠色發電站。

CHAIRMAN'S STATEMENT

主席報告

The Group has been highly recognized in the industry in terms of its product innovation capabilities. On 21 April 2018, the opening ceremony of the World Industrial Design Conference was held in Hangzhou, China, at which the Group's HanTile product series won TIA Top Ecological Design Award. On 6-7 September 2018, at the Creative International Innovation Festival 2018 held in Beijing, a series of our products including HanPack, HanPaper and Humbrella won the Gold Prize for Science and Technology Innovation. The fourth generation of GaAs solar cells of the Group were also shortlisted for the Prism Awards for Photonics Innovation 2019, which, known as the "Oscar in Photonics Industry", aims to recognize the best new photonics products in the global market.

With more than 25 certifications of our core products at home and abroad, our group management has obtained the first integrated management system certification in the industry in the world

As at 31 December 2018, our five types of products, namely HanTile, HanWall, HanPack, HanPaper and Humbrella, have obtained more than 25 certifications for a variety of products at different levels at home and abroad, covering a number of countries and regions including China, the USA, Australia and the EU. Such products and certifications therefore fill in the gap in this sector both at home and abroad.

In addition, the Group obtained ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 Group Management System Certification on 7 January 2019, and obtained the first ISO 9001/ISO 14001/ISO 45001 integrated management system certification in the thin film solar industry in the world issued by TÜV SÜD Greater China Group on 14 January 2019. The successful obtaining of such certifications is the result of the Group's long-term continuous efforts in management regulation and standardization.

本集團的產品創新能力獲得了業內高度認可。二零一八年四月二十一日，世界工業設計大會開幕儀式在中國杭州舉行，本集團的漢瓦產品在會上榮獲TIA生態設計獎。二零一八年九月六日至七日，在北京舉行的2018科睿國際創新節上，本集團的漢包、漢紙、漢傘等產品榮獲科技創新類金獎。本集團的第四代砷化鎵太陽能電池也入圍了2019年稜鏡光子學創新獎(Prism Awards for Photonics Innovation)，該獎被稱為「光子學行業奧斯卡」，旨在表彰全球市場上最好的新型光子學產品。

國內外核心產品認證逾25項，集團化管理獲全球業內首張整合管理體系認證

截至二零一八年十二月三十一日，本集團的漢瓦、漢牆、漢包、漢紙、漢傘五類產品已獲得國內外各級各類產品認證逾25項，覆蓋中國、美國、澳大利亞、歐盟等多個國家和地區，相關產品及其認證填補了國內外在此領域的空白。

同時，本集團於二零一九年一月七日順利通過ISO 9001:2015、ISO 14001:2015和ISO 45001:2018集團化管理體系認證，並於二零一九年一月十四日獲得由TUV南德意志大中華集團頒發的全球薄膜太陽能行業首張ISO 9001/ISO 14001/ISO 45001整合管理體系認證證書。該認證的順利通過，是本集團長期以來在管理規範化、標準化上持續不斷努力結出的碩果。



CHAIRMAN'S STATEMENT

主席報告

Downstream business showed positive growth momentum, achieving significant breakthroughs in overseas sales

During the year, the downstream business of the Group showed positive growth momentum and a number of high-quality projects were implemented in bulk. In particular, the BIPV Project for Overseas Chinese Town in Heyuan, Guangdong Province is the first commercial application for the Group's HanWall product, and is also the largest HanWall project in terms of installed capacity of a single building so far; the Group's thin film solar roof-top project of China Zun, the highest building in Beijing, won the first prize of the China Distributed Energy Project 2018 at China Distributed Energy International Forum 2018 (14th) held in August 2018.

In order to further expand overseas markets, the Group enhanced the establishment of sales network and sales force overseas during the year, leading to a major breakthrough in overseas sales. As at 31 December 2018, the Group has formed 32 national companies around the world and contracted with major customers from a number of countries including Japan, Australia, the USA, Vietnam, and etc. In particular, the Group entered into a supply contract for HanTile amounting up to RMB900 million with Forest Global Stage, a building photovoltaic conglomerate in Japan, on 7 September 2018; and entered into a supply contract for HanWall and other products for a term of three years with Environmental Technology Solutions in Australia on 28 November 2018, with an annual supply of 30,000 square meters.

During the year, the Group also cooperated with Aurora Flight Sciences, a subsidiary of Boeing Company, to provide the global leading flexible GaAs thin film cells solution for its large solar-powered unmanned aircraft, which enables the unmanned aircraft to fly effectively and infinitely powered only by solar energy. The National Aeronautics and Space Administration (NASA) is also conducting a test on the Group's flexible GaAs thin film cells at the International Space Station to assess whether it can be used in NASA's low-Earth orbit missions in future, including powering CubeSats.

下游業務發展勢頭良好，海外銷售實現重大突破

年內，本集團下游業務發展勢頭良好，實現了眾多優質項目的批量落地。其中，本集團完成的廣東河源華僑城BIPV項目，是本集團漢牆產品的第一個商業應用項目，也是迄今為止單體建築裝機量最大的漢牆項目；本集團完成的北京第一高樓——中國尊薄膜太陽能屋頂項目，在二零一八年八月召開的2018（第十四屆）中國分佈式能源國際論壇上，榮獲2018年度中國分佈式能源優秀項目一等獎。

為進一步拓展海外市場，本集團於年內大力加強了海外銷售網絡和銷售力量的建設，促成了海外銷售的重大突破。截至二零一八年十二月三十一日，本集團在全球建立了32家國家公司，並與日本、澳大利亞、美國、越南等多個國家的大客戶簽署了合約。其中，本集團於二零一八年九月七日與日本建築光伏綜合集團公司Forest Global Stage簽署的漢瓦供貨合約金額高達9億元人民幣；二零一八年十一月二十九日，本集團與澳大利亞Environmental Technology Solutions公司簽署了為期三年的漢牆及其它產品供貨合約，每年供貨量達到3萬平方米。

本集團亦於年內與波音公司旗下極光飛行科學公司Aurora合作，為其大型太陽能無人機提供全球領先的柔性砷化鎵薄膜電池解決方案，使其無人機僅靠太陽能提供動力就能有效地無限飛行。美國國家航空航天局(NASA)也正在國際空間站對本集團的柔性砷化鎵薄膜電池開展測試，以評估其未來是否可用於NASA低地球軌道飛行任務，包括為立方體衛星(CubeSats)提供動力。

CHAIRMAN'S STATEMENT

主席報告

2019 OUTLOOK OF THE GROUP

Looking forward to 2019, the Group will seize the opportunities arising from significant changes in the global energy structure and rapid development of the thin film solar industry by improving its thin film solar energy technology continuously, thus maintaining and consolidating its leading position in the global thin film solar industry. In addition, focusing on the upstream and downstream of the thin-film solar energy industry chain, it will continue to lead the development of the thin-film solar energy industry.

At the upstream end of the industry chain, the Group will continue to invest in the research and development of thin film solar technology, and hold and refresh the world records of conversion efficiency of thin film solar energy technology; accelerate the development and localization of thin film solar equipment production lines, especially core equipment, in an effort to achieve 100% localization rate of the equipment production lines of all technology lines of the Group as soon as possible; and continue to promote the industrialization, and marketization of thin film solar technology through cooperation with mobile energy intelligent manufacturing bases in different regions around the world.

At the downstream end of the industry chain, the Group will, centralizing three major areas of housing, usage and transportation and focusing on three major application sectors of green building, eco-city and mobile energy, constantly develop and introduce differentiated innovative products and solutions; based on the domestic market, intensify the expansion of international market, and provide customers with global leading thin-film solar products and solutions by the combination of direct sales to large clients and distribution by distributors; and take all measures on a customer-oriented basis to significantly reduce product costs and enhance market competitiveness.

本集團2019年展望

展望二零一九年，本集團將緊緊抓住全球能源結構深刻變革、薄膜太陽能行業高速發展的契機，持續提升本集團的薄膜太陽能技術，保持、鞏固全球薄膜太陽能行業領導者地位，並以此為基礎，專注於薄膜太陽能產業鏈的上游和下游，繼續引領薄膜太陽能行業的發展。

在產業鏈上游，本集團將持續投入進行薄膜太陽能技術的研發，保持、刷新薄膜太陽能技術轉換效率世界紀錄；加快推進薄膜太陽能裝備產線尤其是核心設備的研發和國產化，使本集團各技術路線的裝備產線國產化率盡快達到100%；並通過與全球各地的移動能源智能製造產業基地合作，持續推進薄膜太陽能技術的產業化、市場化。

在產業鏈下游，本集團將主要圍繞住、用、行三大領域，聚焦綠色建築、生態城市、移動能源三大應用市場，不斷開發和推出差異化的創新性新品及解決方案；立足國內市場，加大力度拓展國際市場，採取大客戶直銷、經銷商分銷的「雙輪驅動」模式，為客戶提供全球領先的薄膜太陽能產品及解決方案；並以客戶價值為導向，採取全方位措施大幅降低產品成本，提升市場競爭力。



CHAIRMAN'S STATEMENT

主席報告

We believe that the global leading thin-film solar technology and innovative thin-film solar products and solutions of the Group, by enabling all things to generate power, will surely integrate into and change our lives in all aspects with the advent of the mobile energy times, realizing "Efforts Joined, Everything Powered". The Group will be better looking into 2019!

On behalf of the Board of the Company, I would like to take this opportunity to express my heartfelt gratitude to all the shareholders and business partners for their long-term support, and sincere thanks to all the staff for their efforts and contributions during the year!

Yuan Yabin

Chairman

29 March 2019

我們深信，本集團全球領先的薄膜太陽能技術，以及創新性的薄膜太陽能產品及解決方案，通過賦予萬物以發電功能使其實現直接利用太陽能，必將隨著移動能源時代的到來而進入並改變生活的方方面面，實現「天地同力，萬物發電」。本集團的二零一九年一定會更好！

藉此機會，我謹代表本公司董事會向全體股東和業務夥伴一直以來所給予的支持表示衷心的感謝，並對全體員工的努力和貢獻致以誠摯的謝意！

袁亞彬

董事會主席

二零一九年三月二十九日

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS MODEL

Hanergy Thin Film Power Group Limited (the “Company”) is a high-tech new energy enterprise listed on the Hong Kong Stock Exchange. It has been engaged in the thin film solar energy business since 2009. Its principal activities include (i) the research and development, design, assembling, sales and delivery of production equipment and turnkey production lines for thin-film solar energy cells/modules as well as the provision of related technical services; (ii) the research and development, design, sales and delivery of thin-film solar energy power generation systems and products of mobile energy applications; and (iii) provision of technical services and support, construction and maintenance to upstream production lines and downstream applications and products.

The Group has been actively involved the investment, research and development of globally advanced thin-film solar energy technologies, and has deployed research and development teams of scientists at various locations around the globe, including the United States, Germany, Sweden as well as China for continuous improvements in the conversion rates of thin-film cells and technological research and development capabilities. Currently, the Group has acquired the most advanced technologies in the world such as copper indium gallium selenium (CIGS), gallium arsenide (GaAs) and high efficiency silicon hetero junction (SHJ) technologies, and by continues improvement of the conversion rates of thin film cells and technological research and development capabilities, it has established a unique competitive advantage.

業務模式

漢能薄膜發電集團有限公司(「本公司」)是一家在香港交易所上市的高科技新能源企業，自二零零九年以來從事薄膜太陽能行業，主要業務包括(i)薄膜太陽能電池／組件生產裝備及整套生產線的研發、設計、組裝、銷售及交付，並提供相應技術服務；(ii)薄膜太陽能發電系統及移動能源應用產品的研發、設計、銷售及交付；及(iii)向上游生產線及下游應用及產品提供技術服務和支持、建設及維護服務。

本集團一直積極開展全球先進薄膜太陽能技術的投資及研發，在美國、德國、瑞典、中國等全球多個地方均部署科學家研發團隊，持續致力於提升薄膜電池轉換率及技術研發能力。至今本集團已掌握全球領先的銅銦鎳硒(CIGS)、砷化鎵(GaAs)和高效硅異質結(SHJ)技術，並持續提升薄膜電池轉換率及技術研發能力，建立獨特的競爭優勢。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS MODEL *(continued)*

The Group has continued to maintain its position as the world's advanced high-tech energy company in the field of thin-film power generation. To capture the opportunity of economic transformation and upgrade, the Group has established close cooperative relationships with a number of "mobile energy industrial parks" in recent years, delivering high-end equipment and production-line "turnkey" solutions. For the downstream solar energy applications, the Group continued to adopt the mature business model of key customers and distributors, and actively explored market potential by developing overseas distributors at the same time. Meanwhile, the Group took advantage of its own innovative technological edge, focused on applying thin-film solar energy technology to daily life, and developed various types of products with cutting-edge thin-film applications. Satisfactory results were also achieved in distributed energy and mobile energy solutions.

The Group enjoys indisputable recognitions of its leading position and brand influence in the industry. At the end of 2017, it was selected by Thomson Reuters, a multinational media and consultancy company, as one of the "Top 100 Global Energy Leaders"; and listed among the top 25 in the area of renewable energy. We were the only Chinese thin-film solar energy company on the list.

業務模式 *(續)*

本集團繼續保持全球領先薄膜發電高科技能源公司的位置。為把握經濟轉型升級的契機，近年本集團與多個「移動能源產業園」建立緊密的合作關係，打造高端裝備及產線的「交鑰匙」解決方案。在下游太陽能應用領域，本集團繼續沿用成熟的大客戶及經銷商業務模式，同時發展海外經銷商，積極發掘市場潛能。與此同時，本集團憑藉自身創新技術優勢，專注將薄膜太陽能技術應用到日常生活中，研發出各類型顛覆性薄膜應用產品，分佈式能源及移動能源的解決方案均取得理想進展。

本集團的行業領導地位及品牌影響力有目共睹。二零一七年底獲跨國媒體及諮詢公司湯森路透公司評選為《全球能源領導者前100強》能源分領域可再生能源的前25強，是該榜單上唯一的中國薄膜太陽能公司。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

FINANCIAL REVIEW

For the financial year ended 31 December 2018, the Group recorded a revenue of HK\$21,251,772,000, representing a strong growth of approximately 246% increase as compared with 2017, of which revenue from upstream business and downstream business took up 92% and 8% of the Group's revenue, respectively. The gross profit for the year increased from HK\$2,675,241,000 in 2017 to HK\$12,122,362,000.

The Group recorded a profit of HK\$5,193,068,000 in 2018, compared to HK\$261,032,000 last year, representing a 18.9 times increase. It was mainly attributable to a number of factors including major technological breakthrough of the Group, the great support of state policies for industries in thin-film power generation, mobile energy, high-end equipment production, new energies and new materials, as well as the excellent development in industrial parks, which helped the Company achieve relatively great progress in the upstream business during the period.

In recent years, the Group has been committed to exploring multiple sources of income and businesses, and has been substantially reducing its reliance on connected transactions with Hanergy Mobile Energy Holding Group Co. Ltd., Hanergy Hydropower Group (previously known as Hanergy Holding Group) and its affiliates ("Hanergy Affiliates"). The secured debts owed by Hanergy Affiliates to the Group were fully repaid before the end of March 2018, which was one and a half years earlier than scheduled.

財務回顧

截至二零一八年十二月三十一日止財政年度，本集團收入達21,251,772,000港元，較二零一七年增長約246%，實現了強勁增長，其中上游及下游收入佔期內集團收入佔比分別為92%及8%。本年度毛利則由二零一七年之2,675,241,000港元增長至12,122,362,000港元。

本集團於二零一八年錄得5,193,068,000港元溢利，為去年261,032,000港元溢利的約18.9倍，主要受惠於本集團在技術上取得重大突破、國家政策對薄膜發電、移動能源、高端裝備製造、新能源新材料等產業的大力支持、產業園的良好發展等，使公司上游業務在期內取得較大的進展。

近年，本集團銳意開拓多元化的收入來源及業務，大幅減少依賴與漢能移動能源控股集團、漢能水力發電集團（前稱「漢能控股集團」）及其聯屬公司（「漢能聯屬公司」）的關連交易。漢能聯屬公司對本集團的所有受擔保債務，已於二零一八年三月底前全部還清，較原定時間提早了一年半。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW

With the support of national policies and the increasing voice of the society for the protection of green environment, the proportion of clean energy consumption has been increasing, and solar energy power generation, with its growth following an upward trend, has become one of the fastest growing renewable energy markets in the world and in China. While the National Energy Administration of China issued “the Notice on Matters Related to Photovoltaic Power Generation in 2018” on 31 May to reduce photovoltaic subsidies and regulate the development of distributed photovoltaics, thus putting the production side under pressure, but the National Energy Administration subsequently emphasised that “the direction of developing photovoltaics and the state’s support for the photovoltaic industry are unwavering.” It is clear that the purpose of the policy is to rectify the problem of the traditional photovoltaic energy enterprises that are confined in a single development model and relying on subsidies, so as to promote healthier and more orderly development of the photovoltaic industry. Looking back on 2018, China’s solar energy power generation industry was still able to maintain steady and healthy growth despite the introduction of the 531 new policy. The cumulative installed capacity of solar power in the country reached 174GW, representing an increase of 34% year-on-year, and newly installed capacity was approximately 44GW.

業務回顧

隨著國家政策的支持以及社會對綠色環保的呼聲日益提高，清潔能源消費佔比不斷提升，太陽能發電的發展勢頭良好，成為全世界及中國國內增長速度最快的可再生能源市場之一。儘管中國國家能源局於五月三十一日出台《關於2018年光伏發電有關事項的通知》，降低光伏補貼並規範分佈式光伏發展，令製造端承壓，但後續國家能源局方面便強調，「發展光伏的方向是堅定不移的，國家對光伏產業的支持是毫不动摇的」，可見此政策目的是整頓依賴國家補貼、局限單一發展模式的傳統太陽能企業，促進光伏行業更健康有序發展。回顧二零一八年，在531新政出台後，中國太陽能發電行業仍能保持穩定健康發展，全國累計太陽能發電裝機容量達到了174GW，同比增長34%，新增裝機量約44GW。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

The Group insists to use thin-film solar energy as its core technology and have not relied too much on state subsidies, and as such it is less affected by the new regulation. During the year of industrial transformation and upgrading, the Group continued to focus strategically on upstream core technology research and development, production equipment delivery, and downstream diversified applications of thin film solar energy to create a mobile energy ecosystem and provide solutions for an “ecological city”. During the year, new industrial park customers were added to the upstream business, and new downstream, subversive green building materials and application products such as “HanWall”, single glass “HanTile” and multi-functional umbrella “Humbrella” were introduced. Among them, “HanWall” is the world’s first “Green System Solution with Power Generation Walls”, which combines safety and power generation efficiency. Meanwhile, the Group also actively expanded its application sales business, which contributed to the steady progression during the year.

A. Organization Structure:

The Group carried out an organizational restructuring during the year to optimize the corporate structure of internal governance on a continuous basis, and to promote the upstream and downstream business development. To fit in to the Group’s global business deployment, the upstream and downstream marketing headquarters are differentiated by application products in order to create a more efficient structure, which includes the downstream products HanTile, HanWall, HanRoad, HanCar, HanPaper, HanPack, Humbrella, distributed/EPC, as well as the upstream marketing of production lines. These are consolidated into a “Global Market Sales Group”. At the same time, the Group also added the “Pricing Management Centre” and “Risk Control Centre” to meet the needs of business operation as well as to further optimize the organizational structure of the Company.

業務回顧(續)

本集團堅持以薄膜太陽能為核心技術，沒有過多依賴國家補貼政策，因此受此次新規影響較小。在行業轉型升級的這一年，本集團繼續戰略性地專注於上游核心技術研發、生產裝備交付，及下游薄膜太陽能多樣化應用，打造移動能源的生態圈和提供「生態城市」解決方案。本年度上游業務新增產業園客戶，下游則推出了「漢牆」(HanWall)、單玻「漢瓦」(HanTile)及多功能傘「漢傘」(Humbrella)等顛覆性的嶄新綠色建築材料及應用產品，當中「漢牆」更是全球首套「發電牆綠色系統解決方案」，兼具安全性與發電效能。與此同時，本集團積極拓展應用銷售業務，使本年度的整體業績達致穩中有進。

A. 組織架構：

本集團於期內進行架構重組，繼續優化公司內部治理結構，促進上下游的業務發展。為配合本集團的全球佈局，上下游營銷總部以應用產品做出區分，從而創造更有效率之架構，包括下游的漢瓦、漢牆、漢路、漢車、漢紙、漢包、漢傘、分佈式/EPC及上游的產線營銷，並整合為「全球市場銷售集團」。此外，本集團亦新增「定價管理中心」及「風險控制中心」等，以滿足業務運營需要及進一步優化公司架構。

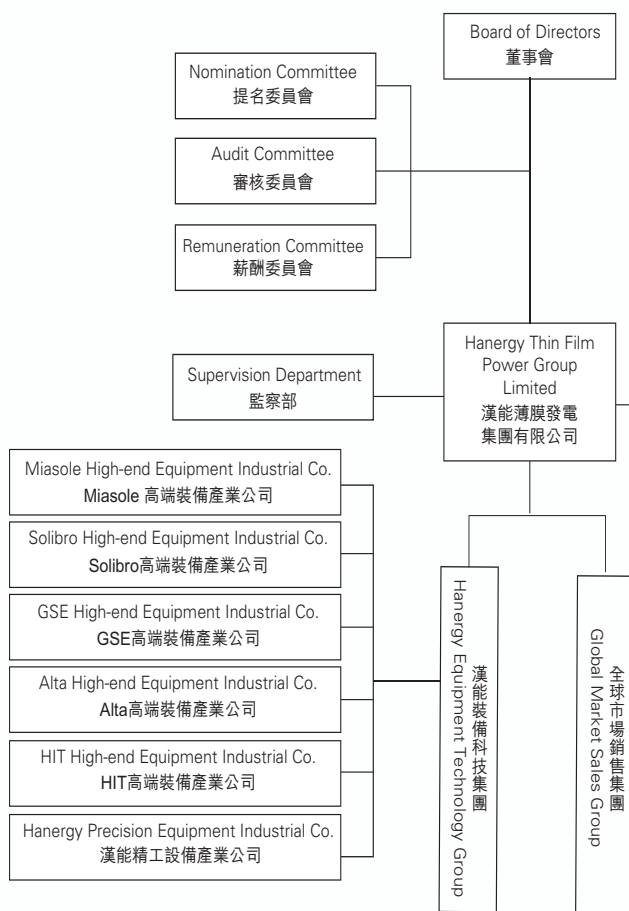
MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW (continued)

A. Organization Structure: (continued)

The organization structure of the Group as at 31 December 2018 is as follows:



業務回顧(續)

A. 組織架構：(續)

以下為本集團於二零一八年十二月三十一日之組織架構圖：



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

B. Upstream Business:

The upstream business of the Group mainly includes the research and development, design, sales and delivery of thin-film solar energy cells/modules production equipment and whole production lines, as well as the provision of supporting technical services. On the backdrop of the vigorous promotion of energy structure transformation by Chinese government, the Group cooperated with multiple mobile energy industrial parks, actively promoting the turnkey projects and large-scale localisation of production lines for the thin-film solar energy module production equipment.

In 2018, the Group continued to focus on industrial park projects by designing and assembling the turnkey solution production lines of thin-film solar energy cells and modules. For the financial year ended 31 December 2018, the Group's upstream business recorded a revenue of approximately HK\$19.55 billion, contributed by the research and development, design and sales of high-end equipment production lines for thin-film solar energy, including MiaSolé, Solibro, Global Solar Energy (GSE), Alta Devices and SHJ.

Our Thin-film Solar Technology Hits New High

The Group has been focusing on technological breakthroughs and innovative research and development for many years. It has set up professional research and development teams at various locations around the globe, including the United States, Germany, Sweden and China for the enhancement of various technologies.

業務回顧(續)

B. 上游業務：

本集團之上游業務主要包括薄膜太陽能電池／組件生產裝備及整套生產線的研發、設計、銷售及交付，並提供相應技術服務。在中國政府大力推動能源結構轉型的大背景下，本集團透過與多個移動能源產業園合作，積極推動開展薄膜太陽能組件生產裝備產線的交鑰匙工程及大規模國產化。

二零一八年，本集團繼續專注產業園項目，並設計及組裝薄膜太陽能電池和組件的交鑰匙解決方案生產線。截至二零一八年十二月三十一日止財政年度，本集團通過研發、設計、銷售MiaSolé、Solibro、Global Solar Energy (GSE)、Alta Devices、SHJ等之薄膜太陽能高端裝備產線，上游業務錄得約195.5億港元收入。

薄膜太陽能技術再創先河

本集團多年來專注技術突破及創新研發，在美國、德國、瑞典、中國等全球多個地點皆設有專業研發團隊，以提升各項技術。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW (continued)

B. Upstream Business: (continued)

Our Thin-film Solar Technology Hits New High (continued)

In 2018, the conversion efficiency of the Group's thin-film solar energy modules reached another new high. In particular, Solibro's top mass production of winner glass-based CIGS modules of the Group reached a conversion efficiency of 18.72% and Solibro's modules obtained TUV SUD product certification in October 2018; the conversion efficiency of MiaSolé flexible cell modules reached 19.4%; GSE's third-generation cell modules obtained the highest level 6 certification on salt spray of IEC, with its R&D conversion efficiency enhanced from 18.7% to 19.3%, while the conversion efficiency of the top mass production of the winner modules reached 16.3% and a certificate was awarded, representing the first of such honour in the industry's certification.

The mass production efficiency of Alta Devices' GaAs single junction modules reached 25.1%, and obtained the Fraunhofer ISE CalLab solar energy modules certification on 14 November 2017. In June 2018, the single junction efficiency reached 28.9%, and obtained the U.S. National Renewable Energy Laboratory (NREL) certification, refreshing the world's single junction record it had already held. By optimizing the cells, the efficiency of the new samples reached 29.1% during the test by Fraunhofer-ISE in Germany in November 2018, further refreshing the world single junction record it held as shown on the NREL's research and development efficiency chart in December this year; the R&D efficiency of the Group's SHJ cell was as high as 24.23%, which was certified by Japan Electrical Safety and Environment Technology Laboratories (JET). This demonstrated the constant technology advancement of the Group in the past year and the recognition of our leading technological advantages in the industry.

業務回顧(續)

B. 上游業務：(續)

薄膜太陽能技術再創先河(續)

二零一八年，本集團的薄膜太陽能組件轉換效率再創新高。其中，本集團Solibro量產冠軍的玻璃基CIGS組件轉換效率達到18.72%，Solibro組件於二零一八年十月通過TUV南德產品認證；MiaSolé柔性電池組件的轉換效率達到19.4%；GSE三代組件電池通過最高嚴格等級六的國際電工委員會(IEC)標準鹽霧認證，而且其研發轉換效率從18.7%提升至19.3%，量產冠軍組件的轉換效率則達到16.3%，並獲得證書，打破行業認證空白。

Alta Devices的砷化鎵單結組件量產效率達到25.1%，於二零一七年十一月十四日通過弗勞恩霍夫太陽能系統研究所(Fraunhofer ISE) CalLab太陽能組件認證，於二零一八年六月份獲得28.9%單結效率，並經美國國家再生能源實驗室(NREL)測試認證，刷新自身保持的單結世界紀錄。通過優化電池，新的測試樣品於二零一八年十一月德國弗勞恩霍夫太陽能系統研究所(Fraunhofer-ISE)得到測試結果29.1%，並在十二月美國國家再生能源實驗室(NREL)的研發效率圖上再次刷新了自身保持的單結世界紀錄；而本集團的高效硅異質結(SHJ)電池研發效率也高達24.23%，並已獲得日本電氣安全環境研究所(JET)認證，彰顯了本集團在過去一年取得持續的技術進步，確立了行業技術領先優勢。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

B. Upstream Business: *(continued)*

Actively Promoting the Strategic Development of Industrial Park Projects

In recent years, the Chinese government has been promoting energy transformation, low-carbon development, as well as strategic public-private partnerships (PPP). One of the most representative case of these is mobile energy industrial park. As the industrial park project companies have commenced mass production of thin film modules with the support of local governments, combined with the increasing demand for thin-film solar energy products, the Group believes that it will generate considerable sales revenue to the industrial park projects.

In 2018, Hanergy Thin Film Power, continued to provide the industrial parks being the purchaser of equipment and technology, with a series of turnkey production lines, including CIGS, GaAs and high-efficiency silicon hetero junction (SHJ). During the year, the Group's major customers of industrial park projects included Mianyang Industrial Park, Datong Industrial Park and Zibo Industrial Park, as well as the newly added Anhui Bengbu Jinneng Mobile Energy Industrial Park, all contributing to the regional economic development and transformation.

During the period, the delivery of contracted projects was carried out and part of the payments was received. The Group is currently in negotiation with more industrial parks, including those in foreign countries. It is expected that similar industrial park projects will be contracted in the future. This will contribute to the results in the next few years.

業務回顧 *(續)*

B. 上游業務：*(續)*

積極推進產業園項目戰略開發

近年中國政府大力推進能源轉型和低碳發展，並推廣戰略性政府與社會資本合作模式(PPP)，其中最具代表性之一的佈局便是移動能源產業園。產業園項目公司獲得各地地方政府支持，從事大規模薄膜組件生產，加上薄膜太陽能產品的需求持續增長，本集團相信將為產業園項目帶來可觀的銷售收入。

二零一八年，漢能薄膜發電繼續為作為設備與技術認購方的產業園提供CIGS、GaAs和高效硅異質結(SHJ)等一系列交鑰匙生產線。本年內集團的產業園項目客戶主要為綿陽產業園、大同產業園及淄博產業園，並新增安徽蚌埠金能移動產業園，助力區域經濟發展及轉型。

期內簽約之項目，正加緊進行交付並已收到部分回款。本集團正在與更多產業園包括海外國家進行合作洽談，預計未來將會簽約更多類似的產業園項目，為未來幾年的業績作出貢獻。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW (continued)

B. Upstream Business: (continued)

Actively Promoting the Strategic Development of Industrial Park Projects (continued)

Anhui Bengbu Jinneng Mobile Energy Industrial Park Project

In June 2018, Hanergy Affiliates entered into a sales contract with Bengbu Jinneng Mobile Energy ("Bengbu Jinneng") Project Company through a distributor for the provision of a 300MW GSE CIGS thin film solar cell and module production line and a 300MW CIGS thin film solar cell and three-curved single-glass HanTile production line to Anhui Bengbu Jinneng at a total price of RMB3.635 billion. In June 2018, Bengbu Jinneng Mobile Energy Co., Ltd. entered into another sales contract with Hanergy Affiliates. Pursuant to the terms and conditions of the contract, the authorised distributors of Hanergy Affiliates will provide technical services for the 300MW GSE CIGS thin-film solar cell and 300MW HanTile production lines to Bengbu Jinneng Mobile Energy Co., Ltd. at a consideration of RMB669 million.

Bengbu Jinneng is a new energy company focusing on and developing towards the research and development, production, manufacturing and sales services of solar cells and modules, semiconductor chips and building materials. The project complies with the national industrial policy and development strategy, and is in line with the industrial development direction of Bengbu City, Anhui Province. By taking advantage of the existing comprehensive industrial systems of mechanical, chemical, electronics, building materials and other industries, we can assist a number of electromechanical automation equipment companies to become the supplier of this project, so as to facilitate to form an industrial cluster of localised semiconductor and solar energy equipment.

業務回顧(續)

B. 上游業務：(續)

積極推進產業園項目戰略開發(續)

安徽蚌埠金能移動產業園項目

二零一八年六月，漢能聯屬公司透過經銷商與蚌埠金能移動能源（「蚌埠金能」）項目公司訂立一份銷售合同，以人民幣36.35億元的價格向安徽蚌埠金能公司供應300MW GSE CIGS薄膜太陽能電池芯片組件製造生產線及300MW CIGS薄膜太陽能電池芯片和三曲面單玻漢瓦製造生產線。於二零一八年六月，蚌埠金能移動能源有限公司與漢能聯屬公司再訂立一份銷售合同。根據該協議的條款及條件，漢能聯屬公司授權經銷商向蚌埠金能移動能源有限公司提供300MW GSE CIGS薄膜太陽能電池芯片及300MW漢瓦製造生產線的技術服務，合同作價人民幣6.69億元。

蚌埠金能是一家以太陽能光伏電池及電池組件、半導體芯片、建築材料的研發、生產、製造、銷售服務為核心業務和發展方向的新型能源企業。該項目符合國家產業政策及發展戰略，與安徽省蚌埠市的產業發展方向十分吻合，可依托蚌埠已擁有的機械、化工、電子、建材等行業齊備的工業體系，同時可扶持一批機電自動化設備的裝備公司作為本項目供應商，幫助當地形成半導體、太陽能行業裝備國產化的產業集群。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

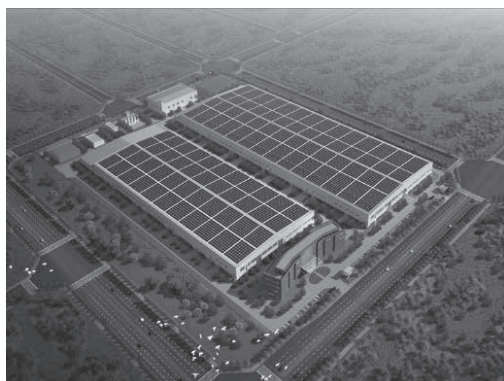
BUSINESS REVIEW *(continued)*

B. Upstream Business: *(continued)*

Actively Promoting the Strategic Development of Industrial Park Projects (continued)

Anhui Bengbu Jinneng Mobile Energy Industrial Park Project

The preliminary planning and design of Bengbu Jinneng Industrial Park project was completed on 14 December 2018. The civil work of the plant was commenced on 18 December 2018, and will be ready for equipment move-in by middle of May 2019.



業務回顧 *(續)*

B. 上游業務：*(續)*

*積極推進產業園項目戰略開發 *(續)**

安徽蚌埠金能移動產業園項目

蚌埠金能產業園項目於二零一八年十二月十四日完成前期項目規劃設計工作，廠房土建於二零一八年十二月十八日開始施工，預計於二零一九年五月中旬具備設備搬入條件。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW (continued)

B. Upstream Business: (continued)

Actively Promoting the Strategic Development of Industrial Park Projects (continued)

Sichuan Mianyang Industrial Park Project

On 18 May 2017, Mianyang Fucheng district government and Hanergy Affiliates entered into a cooperation agreement in relation to a mobile energy industrial park project ("Mianyang Industrial Park Project"), pursuant to which investment will be made for the construction and installation of CIGS and GaAs thin film solar energy modules production lines in Fucheng District, Mianyang City, Sichuan Province. Mianyang Industrial Park Project comprises four phases, of which phase I involves 600MW CIGS thin film solar energy modules and 20MW flexible GaAs thin film solar energy modules production lines, with the total investment amount of RMB6.6 billion. In June 2017, the Group entered into a sales contract with the Mianyang Industrial Park project company, to provide the 600MW GSE CIGS thin-film production lines to Mianyang Industrial Park at an aggregate price of approximately RMB3.755 billion, including a former contract of approximately RMB3.491 billion and latter contract of approximately RMB263.5 million.

Currently, 26% of the commenced 300MW production line equipment has been delivered. For the financial year ended 31 December 2018, revenue generated from the contract amounted to approximately HK\$964 million.



業務回顧(續)

B. 上游業務：(續)

積極推進產業園項目戰略開發(續)

四川綿陽產業園項目

於二零一七年五月十八日，綿陽市涪城區政府與漢能聯屬公司訂立一項有關移動能源產業園項目的合作協議（「綿陽產業園項目」），計劃於四川省綿陽市涪城區投資進行CIGS及GaAs薄膜太陽能組件生產線建設及安裝。綿陽產業園項目分為四期，其中第1期為600MW CIGS薄膜太陽能組件及20MW柔性GaAs薄膜太陽能組件生產線，總投資額為人民幣66億元。二零一七年六月，本集團與綿陽產業園項目公司訂立一份銷售合同，向綿陽產業園提供600MW GSE CIGS薄膜生產線，總價為約人民幣37.55億元，當中包括前端合同約人民幣34.91億元及後端合同約人民幣2.635億元。

目前已啟動的300MW產線設備交付數量佔比26%。截至二零一八年十二月三十一日止財政年度，本合同產生的收入約為9.64億港元。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

B. Upstream Business: *(continued)*

Actively Promoting the Strategic Development of Industrial Park Projects (continued)

Shanxi Datong Industrial Park Project

In July 2017, Datong municipal government of Shanxi Province, Datong Coal Mine Group Co., Ltd. and Hanergy Mobile Energy Holding Co., Ltd., (a Hanergy Affiliate) entered into a strategic cooperation agreement in relation to a mobile energy industrial park project (“Datong Industrial Park Project”), to invest in the construction and installation of CIGS thin-film solar power modules production lines in Datong, Shanxi Province. As of 31 December 2018, all of the 250 MW glass-based CIGS thin film module production line equipment of phase I project has been moved into the plant, and all the equipment of the 50MW flexible CIGS thin film module production line has been completely installed.

For the financial year ended 31 December 2018, revenue generated from the contract amounted to approximately HK\$145 million.



業務回顧 *(續)*

B. 上游業務：*(續)*

*積極推進產業園項目戰略開發 *(續)**

山西大同產業園項目

於二零一七年七月，山西省大同市政府、大同煤礦集團有限公司及漢能移動能源控股有限公司（一間漢能聯屬公司）訂立一份有關移動能源產業園項目（「大同產業園項目」）的戰略性合作協議，計劃在山西省大同市投資進行CIGS薄膜太陽能組件生產線建設及安裝。截至二零一八年十二月三十一日，項目第I期250MW玻璃基CIGS薄膜組件生產線廠房設備已經全部搬入，50MW柔性CIGS薄膜組件生產線設備全部安裝完成。

截至二零一八年十二月三十一日止財政年度，本合同產生的收入約為1.45億港元。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

B. Upstream Business: *(continued)*

Actively Promoting the Strategic Development of Industrial Park Projects (continued)

Shandong Zibo Industrial Park Project

In December 2014, Zibo municipal government of Shandong Province entered into a cooperation framework agreement in relation to a solar energy industrial park project (“Zibo Industrial Park Project”) with Hanergy Holding (now renamed as “Hanergy Hydropower”), to invest in the construction and installation of 3GW CIGS thin film solar energy modules production lines in Zibo, Shandong Province. In October 2017, Hanergy Hydropower transferred 57% equity interests of Zibo Industrial Park Project Company to Dongteng Investment Group Co., Ltd. (formerly known as “Huafengyuan Investment (Beijing) Co., Ltd.”).

In January 2016, the Group entered into a sales contract with Zibo Industrial Park Project Company to sell the 300MW MiaSolé CIGS thin film solar energy production line to Zibo Industrial Park Project Company at the price of US\$390 million. On 27 April 2017, the Group entered into another sales contract with Zibo Industrial Park Project Company, to sell the 300MW Solibro CIGS thin film solar energy production line to Zibo Industrial Park Project Company at the price of US\$390 million.

業務回顧 *(續)*

B. 上游業務：*(續)*

*積極推進產業園項目戰略開發 *(續)**

山東淄博產業園項目

於二零一四年十二月，山東省淄博市政府與漢能控股（現更名「漢能水力發電」）訂立一份有關太陽能產業園項目（「淄博產業園項目」）的合作框架協議，計劃在山東省淄博市投資進行3GW CIGS薄膜太陽能組件生產線建設及安裝。於二零一七年十月，漢能水力發電將淄博產業園項目公司的57%股本權益轉讓予東騰投資集團有限公司（前稱「華豐源投資（北京）有限公司」）。

於二零一六年一月，本集團與淄博產業園項目公司訂立一份銷售合同，以3.9億美元的價格向淄博產業園項目公司銷售300MW MiaSolé CIGS薄膜太陽能生產線。於二零一七年四月二十七日，本集團與淄博產業園項目公司再訂立一份銷售合同，以3.9億美元的價格向淄博產業園項目公司銷售300MW Solibro CIGS薄膜太陽能生產線。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

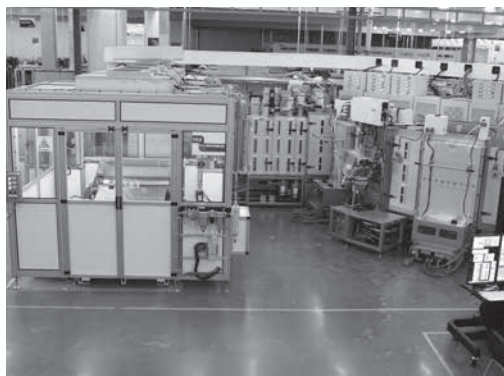
BUSINESS REVIEW *(continued)*

B. Upstream Business: *(continued)*

Actively Promoting the Strategic Development of Industrial Park Projects (continued)

Shandong Zibo Industrial Park Project (continued)

For the financial year ended 31 December 2018, the construction of the 300MW MiaSolé CIGS thin film solar energy production line has been completed, and the 300MW Solibro production line is in the process of trial production. The total revenue generated from the contracts in relation to the above two production lines amounted to approximately HK\$1.745 billion during the year.



Proactively Exploring New Major Customers to Diversify the Upstream Business

The Group took an active approach in exploring major third-party customers in order to diversify our upstream business. In 2018, our major customers' projects mainly included Jingzhou Shunbai Project, Chengdu Dongteng (previously known as "Huafengyuan") Project, Nanjing Yineng Project, Heilongjiang Yineng Project and Dezhou Yineng Project.

業務回顧 *(續)*

B. 上游業務：*(續)*

*積極推進產業園項目戰略開發 *(續)**

*山東淄博產業園項目 *(續)**

截至二零一八年十二月三十一日止財政年度，300MW MiaSolé CIGS薄膜太陽能生產線廠房建設已全部完成，而300MW Solibro產線正在試產。上述兩條不同技術之合同於年內產生的總收入約為17.45億港元。



積極開發新大客戶 多樣化上游業務

本集團積極開發第三方大客戶，務求多樣化上游業務。二零一八年，本集團的主要大客戶項目包括荊州順佰項目、成都東騰（前稱「華豐源」）項目、南京易能項目、黑龍江易能項目及德州易能項目等。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW (continued)

B. Upstream Business: (continued)

Proactively Exploring New Major Customers to Diversify the Upstream Business (continued)

Jingzhou Shunbai Project

In May 2017, the Group entered into a 300MW amorphous silicon BIPV thin film modules production line sales contract and the corresponding technical support and services agreement with Jingzhou Shunbai Solar Power Company Limited (“Jingzhou Shunbai”) for the provision of 300MW amorphous silicon BIPV thin film production line and corresponding technical support and services at the prices of US\$57 million and US\$156 million respectively. The equipment has been delivered and is now under installation, and the stage payments will be made subject to the progress of delivery. For the financial year ended 31 December 2018, revenue from the contracts was approximately HK\$185 million.

In September 2017, the Group entered into a 150MW Solibro CIGS thin film modules production line sales contract and the corresponding technical support and services agreement with Jingzhou Shunbai Industrial Park Project Company for the provision of Solibro 150MW CIGS thin film production line and the corresponding technical services at the prices of RMB\$619.2 million and RMB\$333.4 million respectively. Part of the equipment has been delivered and is now under installation, and the stage payments will be made subject to the progress of delivery. For the financial year ended 31 December 2018, revenue from the contracts was approximately HK\$629 million.

業務回顧(續)

B. 上游業務：(續)

積極開發新大客戶 多樣化上游業務(續)

荊州順佰項目

於二零一七年五月，本集團與荊州順佰太陽能電力有限公司(「荊州順佰」)訂立一份300MW非晶硅BIPV薄膜組件生產線銷售合同及相關的技術支持及服務協議，以5700萬美元的價格提供300MW非晶硅BIPV薄膜生產線，並以1.56億美元的價格提供相關技術支持及服務。設備已交付並正在安裝，同時按照交付進展情況支付階段性款項。截至二零一八年十二月三十一日止財政年度，本合同產生的收入約為1.85億港元。

於二零一七年九月，我們與荊州順佰產業園項目公司訂立一份150MW Solibro CIGS薄膜組件生產線銷售合同及相關的技術服務協議，以人民幣6.192億元的價格提供Solibro 150MW CIGS薄膜生產線，並以人民幣3.334億元的價格提供相關的技術服務。部分設備已交付並正在安裝，同時按照交付進展情況支付階段性款項。截至二零一八年十二月三十一日止財政年度，本合同產生的收入約為6.29億港元。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW (continued)

B. Upstream Business: (continued)

Proactively Exploring New Major Customers to Diversify the Upstream Business (continued)

Jingzhou Shunbai Project (continued)

In January 2018, the Group entered into a 150MW MiaSolé CIGS thin film modules production line sales contract and a services and technical support agreement with Jingzhou Shunbai Industrial Park Project Company, at an aggregate price of RMB746.9 million. Part of the equipment has been delivered and is now under installation. The stage payments will be made subject to the progress of the delivery. For the financial year ended 31 December 2018, revenue from the contracts was approximately HK\$287 million.

Chengdu Dongteng Thin Film Solar (formerly known as Chengdu Huafengyuan) Project

On 26 October 2017, the Group entered into a 600MW SHJ thin film modules production line sales contract with Huafengyuan (Chengdu) New Energy Technology Co., Ltd. (“Chengdu Huafengyuan”) to install and develop its SHJ thin film modules production lines for agricultural solar energy applications in Chengdu, the PRC. Pursuant to the contract, the Group shall provide 600MW SHJ thin film solar power modules production lines to Chengdu Huafengyuan at the price of approximately RMB1.4 billion.

The Group entered into the corresponding technical support and service agreements with Chengdu Dongteng Thin Film Solar Energy Co., Ltd. (“Chengdu Dongteng Thin Film”, formerly known as Huafengyuan (Chengdu) New Energy Technology Co., Ltd.) on 27 October 2017 and 23 March 2018, respectively, for the provision of technical service to 120MW and 480MW SHJ production lines, at an aggregate price of RMB932.6 million.

業務回顧(續)

B. 上游業務：(續)

積極開發新大客戶 多樣化上游業務(續)

荊州順佰項目(續)

於二零一八年一月，本集團與荊州順佰產業園項目公司訂立一份150MW MiaSolé CIGS薄膜組件生產線銷售合同以及服務及技術支持協議，總價格為人民幣7.469億元。部分設備已經交付並正在安裝，同時按照交付進展情況支付階段性款項。截至二零一八年十二月三十一日止財政年度，本合同產生的收入約為2.87億港元。

成都東騰薄膜太陽能(前稱成都華豐源項目)

於二零一七年十月二十六日，本集團與華豐源(成都)新能源科技有限公司(「成都華豐源」)訂立600MW SHJ薄膜組件生產線銷售合同，在中國成都安裝開發其農業應用太陽能項目的SHJ薄膜組件生產線。本集團須以約人民幣14億元的價格向成都華豐源提供600MW SHJ薄膜太陽能組件生產線。

本集團與成都東騰薄膜太陽能有限公司(「成都東騰薄膜」，前稱華豐源(成都)新能源科技有限公司)分別於二零一七年十月二十七日及二零一八年三月二十三日簽訂相關的技術支持及服務協議，分別為120MW及480MW SHJ生產線提供技術服務，價格合計人民幣9.326億元。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW (continued)

B. Upstream Business: (continued)

Proactively Exploring New Major Customers to Diversify the Upstream Business (continued)

Chengdu Dongteng Thin Film Solar (formerly known as Chengdu Huafengyuan) Project (continued)

In March 2018, the first production line of 120MW was commissioned for pilot test. Currently, it is in the process of ramping up its capacity, with the output of 7.245MW for the year 2018. Totally 394MW of the 480MW production line has been delivered with the equipment delivery rate of 82%. As at the financial year ended 31 December 2018, accumulated revenue from the above production lines and technical services contracts was approximately HK\$1.662 billion.

On 2 May 2018, the Group entered into a sales contract and a technical support and service agreement with Chengdu Dongteng Thin Film, for the provision of 150MW MiaSolé CIGS thin film modules production line and the corresponding technical support and service, at a total price of RMB893 million. For the financial year ended 31 December 2018, the revenue generated from the contracts was approximately HK\$116 million.

業務回顧(續)

B. 上游業務：(續)

積極開發新大客戶 多樣化上游業務(續)

成都東騰薄膜太陽能(前稱成都華豐源項目)(續)

二零一八年三月開始調試120MW首條產線，現處於產能爬坡階段；二零一八年整年產量為7.245MW。480MW產線已完成合共394MW交付，設備交付率為82%。二零一八年十二月三十一日止財政年度，以上產線及技術合同累計產生的收入約為16.62億港元。

於二零一八年五月二日，本集團與成都東騰薄膜訂立一份銷售合同及一份技術支持及服務協議，提供150MW MiaSolé CIGS薄膜組件生產線及相應的技術支持及服務，總價格為人民幣8.93億元。截至二零一八年十二月三十一日止財政年度，本合同產生的收入約為1.16億港元。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

B. Upstream Business: *(continued)*

Proactively Exploring New Major Customers to Diversify the Upstream Business (continued)

Nanjing Yineng Project

By 12 June 2018, the Group entered into a 300MW Solibro CIGS thin film modules product line sales contract and a technical support and services agreement with Huaxia Yineng (Nanjing) New Energy Co., Ltd (“Nanjing Yineng”) for the provision of 300MW Solibro CIGS thin film modules production line and the corresponding technical support and services to Nanjing Yineng at the prices of RMB1.24 billion and RMB667 million respectively. Positive progress has been made in project delivery. Part of the equipment is now under installation, and stage payments will be made subject to the progress of the delivery. For the financial year ended 31 December 2018, revenue generated from this contract was approximately HK\$1.653 billion.

Heilongjiang Yineng Project

In 2017, the Group entered into a sales contract and a technical support and services agreement with Heilongjiang Huaxia Yineng New Energy Technology Limited (“Heilongjiang Yineng”) for the provision of 300MW Solibro CIGS thin film solar energy modules production lines and the corresponding technical support and services. Positive progress has been made in project delivery. Part of the equipment is now under installation, and the stage payments will be made subject to the progress of the delivery. For the financial year ended 31 December 2018, revenue generated from the contract was approximately HK\$1.193 billion.

業務回顧 *(續)*

B. 上游業務：*(續)*

積極開發新大客戶 多樣化上游業務 *(續)*

南京易能項目

至二零一八年六月十二日，本集團與華夏易能(南京)新能源有限公司(「南京易能」)訂立一份300MW Solibro CIGS薄膜組件生產線銷售合同及一份技術支持及服務協議，分別以約人民幣12.4億元的價格向南京易能提供300MW Solibro CIGS薄膜組件生產線，並以人民幣6.67億元的價格提供相關技術支持和服務。項目交付成績取得積極進展，部分設備正在安裝，同時按照交付進展情況支付階段性款項。截至二零一八年十二月三十一日止財政年度，本合同產生的收入約為16.53億港元。

黑龍江易能項目

根據我們與黑龍江華夏易能新能源科技有限公司(「黑龍江易能」)二零一七訂立一份銷售合同及一份技術支持及服務協議，提供300MW Solibro CIGS薄膜太陽能組件生產線及提供相關技術支持及服務。項目交付成績取得積極進展，部分設備正在安裝，同時將按照交付進展情況支付階段性款項。截至二零一八年十二月三十一日止財政年度，本合同產生的收入約11.93億港元。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW (continued)

B. Upstream Business: (continued)

Proactively Exploring New Major Customers to Diversify the Upstream Business (continued)

Dezhou Yineng Project

In 2017, the Group entered into a sales contract and a technical support and services agreement with Dezhou Yineng New Energy Technology Co., Ltd. (“Dezhou Yineng”) for the provision of 300MW Solibro CIGS thin film solar power modules production line and technical support and services. Positive progress has been made in project delivery. Part of the equipment is now under installation, and stage payments will be made subject to the progress of the delivery. For the financial year ended 31 December 2018, revenue generated from the contract was approximately HK\$1.179 billion.

C. Downstream Business

The downstream business of the Group mainly includes development, design, integration and sales of thin film solar power generation systems, mobile energy application products as well as provision of related services, including: (i) sales of distributed power generation systems, which consist of household rooftop power generation systems, industrial/commercial rooftop power generation systems, building-integrated solar energy (BIPV) systems and solar energy agricultural application systems; (ii) sales of mobile energy application products; (iii) provision of construction and maintenance services of solar power stations; and (iv) EPC work.

業務回顧(續)

B. 上游業務：(續)

積極開發新大客戶 多樣化上游業務(續)

德州易能項目

根據我們與德州易能新能源科技有限公司(「德州易能」)於二零一七訂立一份銷售合同及一份技術支持及服務協議，提供300MW Solibro CIGS薄膜太陽能組件生產線及技術支持和服務。項目交付成績取得積極進展，部分設備正在安裝，同時將按照交付進展情況支付階段性款項。截至二零一八年十二月三十一日止財政年度，本合同產生的收入約11.79億港元。

C. 下游業務

本集團之下游業務主要為研發、設計、集成及銷售薄膜太陽能發電系統、移動能源應用產品並提供相關服務，包括：(i) 銷售分佈式發電系統，包括戶用屋頂發電系統、工商業屋頂發電系統、太陽能建築一體化(BIPV)系統及太陽能農業應用系統等；(ii) 銷售移動能源應用產品；(iii) 提供太陽能發電站建設及維修服務；(iv) EPC工程。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析



BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

The Group has introduced four types of household distributed thin film power generation systems, including (1) standard product series designed for household use; (2) small-scale industrial/commercial product series which utilize idle rooftops of industrial/commercial buildings for small power stations; (3) solar shed series applicable to sunshades and gazebos; and (4) HanTile series power generation modules which take the shape of the arched roof tiles used in the traditional Chinese architecture for general roofing.

With the core technology of the Group, its thin-film solar products have been widely recognized by the market. For the financial year ended 31 December 2018, the downstream business recorded a revenue of approximately HK\$1.70 billion.

Green Buildings Powered by New Energy

New energy buildings represent the development trend of the global construction industry and are also trendy and fashionable architecture. The Group focuses on solar energy applications in construction has launched innovative HanWall, HanTile and BIPV projects, taking full advantages of thin film solar energy.

業務回顧 *(續)*

C. 下游業務 *(續)*

本集團銷售四類戶用分佈式薄膜發電系統，包括：(1)為一般家庭用戶而設之標準產品系列；(2)利用工商業建築閒置的屋頂成為小型發電站的小型工商業產品系列；(3)適用於遮陽棚及涼亭的陽光棚系列；及(4)以中國傳統建築所用的拱形瓦片之造型於普通屋面為發電組件的漢瓦系列。

憑藉本集團的核心技術，本集團的薄膜太陽能產品廣受市場歡迎。截至二零一八年十二月三十一日止財政年度，下游業務錄得約17.00億港元收入。

新能源賦能綠色建築

新能源建築是全球建築行業的發展趨勢，也是建築的潮流和時尚。本集團關注在建築方面的太陽能應用，創造性地推出漢牆、漢瓦和BIPV項目，充分發揮薄膜太陽能的優勢。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW (continued)

C. Downstream Business (continued)

HanWall

In September 2018, the Group launched HanWall, an innovative epoch-making thin film solar energy product. HanWall innovatively “implants” the cutting-edge thin-film solar technology into glass using the most advanced glass-based CIGS thin film solar technology in the world, to turn ordinary glass into new high-tech green power generation building materials. Featured by both safety and power generation efficiency, it is the first “green power generation wall system solution” in the world, enabling buildings to actively produce energy without emissions and reducing impact on the environment, thus realizing a revolutionary breakthrough in the application of solar energy in construction.

There are two types of HanWall: the lightproof “power generation wall” and the light-transmitting “power generation window”, with power generation capacity of 140W each piece. As of September 2018, more than 700 patents and patent applications were produced during the development of HanWall products. 3C certification in China and other certifications of authorities from six countries and regions around the world were applied and awarded for HanWall. As a building material, HanWall is adaptive to extreme variation of temperature ranging from -40°C to 85°C , and can function normally under various extreme conditions. It also comes with a 10-year warranty, ensuring that power output will not be less than 85% in 25 years.

Since its debut in the market, HanWall has attracted great attention from all over the world. The Group and Environmental Technology Solutions in Australia entered into a sales agreement for the sale of HanWall, opening a way to HanWall for the access of international markets.

業務回顧(續)

C. 下游業務(續)

漢牆

二零一八年九月，本集團發佈劃時代薄膜太陽能創新產品—漢牆(HanWall)。漢牆採用全球最先進的玻璃基CIGS薄膜太陽能科技，創造性地將先進的薄膜太陽能科技「植入」玻璃中，讓普通玻璃變身高科技新興綠色發電建材，兼具安全性與發電效能，是全球首套「發電牆綠色系統解決方案」，讓建築能夠主動生產能源且無排放，減輕對環境的負荷，實現了太陽能在建​​築上應用的革命性突破。

漢牆包括不透光的「發電牆」和透光的「發電窗」兩大類別，每片功率達140W。截至二零一八年九月，在研發漢牆產品的過程中，已產出了超過700件專利及專利申請，並已獲得及申請了中國強制性產品(3C)認證和全球六個國家、地區的權威機構認證。作為建築材料，漢牆能夠適應零下 40°C 到零上 85°C 的大溫差耐熱抗凍考驗，在各種極端惡劣環境下也能正常工作，並提供10年質保，保證25年功率輸出不低於85%。

漢牆自推出市場後旋即引起世界各地的高度關注，吸引澳大利亞Environmental Technology Solutions公司與本集團簽署漢牆銷售協議，為漢牆的海外銷售市場打開了道路。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

HanWall (continued)

Case: HanWall BIPV Project for Overseas Chinese Town in Heyuan, Guangdong Province

The BIPV project for Overseas Chinese Town in Heyuan, Guangdong Province, being the first project of practical application for Hanergy's HanWall, has a total installation area of approximately 2,648m² and installed capacity of 236.7KW. Its average daily power output can meet almost 30% electricity demand of the building, and it is the largest HanWall project in terms of installed capacity of a single building. The contract sum of the project is RMB26 million.

Upon the implementation of the project, a demonstration project combining HanWall power generation system and construction will be established, which will showcase a model for HanWall products, especially the applications for constructions in cities, demonstrating the best form of representation of HanWall products in the utilisation of solar power generation in cities - BIPV. In addition, such practical application can also accumulate lots of practical experience and data for HanWall modules, which will be of great significance to the continuous development and expansion of HanWall products. A building becomes a veritable green building by integrating with HanWall modules, realizing energy conservation and emission reduction, which is a perfect combination of economic benefits, social benefits and ecological benefits.



業務回顧 *(續)*

C. 下游業務 *(續)*

*漢牆 *(續)**

案例：廣東河源華僑城漢牆BIPV項目

廣東河源華僑城BIPV項目是漢能漢牆產品實際應用的第一個項目。總安裝面積約為2,648平方米，裝機容量達236.7KW，日均發電基本可滿足建築30%用電需求，是單體建築裝機量最大的漢牆項目。該項目的合同金額為人民幣2,600萬元。

該項目的實施將建立起漢牆發電系統與建築結合的示範工程，為漢牆產品特別是在城市中的建築應用創立示範，向人們展示漢牆產品在城市太陽能電推廣利用中的最佳表現形式—光伏建築一體化。此外，通過項目的實際應用也可以為漢牆組件積累大量的實際經驗和數據，對漢牆產品的持續開發與發展具有重要的意義。建築物與漢牆組件的結合，使該棟建築成為了一個名副其實的綠色建築，實現節能減排，是經濟效益、社會效益、生態效益的完美結合。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

HanTile

Following the introduction of double glass HanTile in 2017, the Group has further launched a series of innovative products this year, including a new generation of single glass triple-curved tiles, colored HanTiles and tubular tiles, which are lighter and thinner than double glass HanTiles. They also have the benefits of high-efficiency power generation and high level of building safety, realizing a perfect combination of thin-film solar technology and traditional architecture, thus creating significant commercial and environmental values to the application of construction materials.

So far, HanTile has been applied to various architectural designs, including Swedish villas, nursing homes in Jilin, Shunyi folk houses in Beijing, Sixian folk houses in Anhui and buildings of Naxi Race in Lijiang, Yunnan, and was officially introduced to the European markets in the first half of 2018. During the year, the Group entered into a HanTile pre-sale agreement with Forest Global Stage (FGS) International Group in Japan, and also launched HanTile demonstration projects in Hong Kong villas for further expansion in the market.

業務回顧 *(續)*

C. 下游業務 *(續)*

漢瓦

繼二零一七年推出的雙玻漢瓦後，本集團今年再創新猷，推出新一代的單玻三曲瓦、彩色漢瓦及筒瓦等創新產品，較雙玻漢瓦更輕、更薄，兼具高效發電性能和高等級建築安全性能，實現薄膜太陽能技術與傳統建築的完美結合，為建材應用帶來重大的商業和環保價值。

目前，漢瓦已被應用於多項建築設計，包括瑞典別墅、吉林養老院、北京順義民居、安徽泗縣民居以及雲南麗江納西族建築等，並於二零一八年上半年正式登陸歐洲市場。今年本集團與日本Forest Global Stage(FGS)國際集團簽署漢瓦預售合約，並在香港別墅開展漢瓦示範項目，進一步拓展業務市場。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

HanTile (continued)

Case: The HanTile Demonstration Project of Hong Lok Yuen Villa in Tai Po, Hong Kong

The HanTile Demonstration Project of Hong Lok Yuen Villa in Tai Po, Hong Kong adopts the new generation of single glass "HanTile" with an installed capacity of 8KW. The project is the first HanTile demonstration project in Hong Kong, which has a good demonstration effect as it is located at the main thoroughfare of the mid- to high-end villa community in Tai Po, Hong Kong.



Case: The HanTile Project of Taikoo Li Sanlitun in Beijing

In 2018, the Group completed the HanTile project of Taikoo Li Sanlitun in Beijing, with an installed capacity of 15KW. After the installation of "HanTile" on the rooftop, Taikoo Li Sanlitun in Beijing is not only environmental-friendly and energy-saving, but has also become a local commercial landmark with great demonstration significance.

業務回顧 *(續)*

C. 下游業務 *(續)*

*漢瓦 *(續)**

案例：香港大埔康樂園別墅漢瓦示範項目

香港大埔康樂園別墅漢瓦示範項目於採用新一代的單玻「漢瓦」，裝機容量8KW。該項目是香港首個漢瓦示範項目，坐落於香港大埔中高端別墅群的交通要道位置，示範展示作用極佳。

案例：北京三里屯太古里漢瓦項目

二零一八年，本集團完成北京三里屯太古里漢瓦項目，裝機容量15KW。北京三里屯太古里的屋頂加裝「漢瓦」後，不但環保節能，更是當地商業地標建築，具有重要示範意義。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

HanTile (continued)

Case: The HanTile Project of Taikoo Li Sanlitun in Beijing (continued)

Established in 1972, Swire Properties Hong Kong has been committed to the development and management of commercial, retail, hotel and residential properties, with the development strategy focusing on the development of superstructure complexes at major transportation interchanges. Swire Properties has five large-scale development projects in Beijing, Shanghai, Guangzhou and Chengdu, of which Taikoo Li Sanlitun and The Opposite House Hotel in Chaoyang District, Beijing are the most prominent.



業務回顧 *(續)*

C. 下游業務 *(續)*

*漢瓦 *(續)**

*案例：北京三里屯太古里漢瓦項目 *(續)**

香港太古地產於1972年成立，致力於發展及管理商業、零售、酒店及住宅物業，發展策略集中在主要運輸交匯點的上蓋發展綜合物業項目。太古地產於北京、上海、廣州和成都，共擁有五個大型發展項目，當中以北京朝陽區的三里屯太古里和瑜舍酒店最為人熟悉。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析



BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Building-Integrated Photovoltaic

Through the installation of thin film solar power generation systems in form of solar energy tile roofs, solar energy sunroofs, solar energy curtain walls, solar energy railings, solar energy sunshades and solar energy parking sheds, BIPV projects utilise solar energy resource to provide clean and free electricity for the building, and provide one-stop solutions for product development, product supply, system design, installation and operation and maintenance. This is a way to achieve a combination of practical functions in power generation and aesthetics architecture through the construction of thin film solar power generation buildings.

Case: Solar Energy Sunroof System in the Atrium of Shanxi National Power Generation Dispatching Complex Building

With the installation area amounting to 800 square meters, the solar energy sunroof system in the atrium of Shanxi National Power Generation Dispatching Complex Building adopts large-size hollow BIPV sunroofs. In this way, it does not only maintain its attractive appearance, but also achieve energy conservation and environmental protection, with the size of a single module of approximately 8 square meters. This is a demonstration project of the national grid.

業務回顧 *(續)*

C. 下游業務 *(續)*

BIPV光伏建築一體化

BIPV項目通過安裝太陽能瓦屋面、太陽能採光頂、太陽能幕牆、太陽能欄杆、太陽能遮陽、太陽能車棚等薄膜太陽能系統，利用太陽能資源為建築提供免費的清潔電力，並在產品開發、產品提供、系統設計、安裝施工和運行維護上提供一站式解決方案，集實用性發電系統和優美的建築形態於一身，構建薄膜太陽能發電建築。

案例：山西國電生產調度綜合樓中庭太陽能採光頂系統

山西國電生產調度綜合樓中庭太陽能採光頂系統安裝面積達800平方米，具超大尺寸中空BIPV採光頂，既保持了建築的美觀外形，又實現了節能環保，單塊組件尺寸近8平方米，為國家電網示範型項目。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Building-Integrated Photovoltaic (continued)

Case: Solar Energy Sunroof System in the Atrium of Shanxi National Power Generation Dispatching Complex Building (continued)

Using modules with high photoelectric conversion efficiency, the project effectively utilizes the solar energy irradiated on the surface of the building. By virtue of the material properties of the dualsilver-layer glass, which ensures high light transmittance while reducing heat transfer coefficient by 21%, amply reducing indoor temperature and reducing the temperature difference between the northern and southern sides of buildings. Air-conditioning power consumption is expected to reduce by 15%. Currently, the cell panels and electrical installation are basically completed, and the project is now under pilot test for the overall grid connection.



業務回顧 *(續)*

C. 下游業務 *(續)*

BIPV光伏建築一體化 (續)

案例：山西國電生產調度綜合樓中庭太陽能採光頂系統 (續)

該項目使用高光電轉換效率的組件，將照射在建築表面的太陽能加以有效利用，並且憑藉雙銀玻璃的材質特性，保證高透光率的同時將傳熱係數降低21%，充分降低室內溫度，縮小了南北側溫差，預計可降低空調耗電量15%。現電池板和電氣安裝基本結束，目前處於項目整體併網調試中。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Roof-top Distributed Solar Power Generation Market

The Group continues to devote great efforts to the development and sales of roof-top power generation systems, taking advantage of rooftop areas for the construction of power stations using thin-film power generation modules, and providing green energy solutions. In 2018, the sales of rooftop power stations contributed revenue of HK\$594 million to the Group.

Case: "China Zun Building" Project in the Core Area of Beijing CBD

Located in the core area of Beijing Central Business District, China Zun Building is the highest landmark in Beijing, with 108 storeys and a height of 528 meters. The project utilizes 640 pieces of the Group's Solibro modules, occupying the rooftops projection areas of approximately 900 square meters with total installed capacity of 92.8KW. In order to improve the wind loading capacity and prevent the impact of extreme weather on the thin film solar power generation systems, the Company innovatively adopted a rail mounting method of installation, ensuring that the system would be safer and more reliable without affecting the overall appearance of the building.

On 27 December 2018, the installation project of China Zun Building was completed, and has become the highest thin-film solar power station in Beijing City.



業務回顧 *(續)*

C. 下游業務 *(續)*

屋頂分布式太陽能發電市場

集團繼續致力於開發及銷售屋頂分布式發電系統，利用屋頂面積建設採用薄膜發電組件的發電站，提供綠色能源解決方案。二零一八年銷售屋頂電站為本集團貢獻5.94億港元之收入。

案例：北京CBD核心區「中國尊」項目

中國尊位是北京市最高的地標建築，位於北京商務中心區核心區，共108層，高528米。項目運用本集團Solibro組件共640塊，佔用屋頂投影面積約為900平方米，總裝機容量為92.8KW。為了增加風荷載，防範非常規極端天氣對薄膜太陽能發電系統的影響，我司創造性採用滑軌式安裝方式，確保了系統更加安全可靠，同時不影響建築的整體外觀效果。

二零一八年十二月二十七日，中國尊項目完成安裝，成為北京市內最高的薄膜太陽能發電站。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Roof-top Distributed Solar Power Generation Market (continued)

Case: Yancheng Haiwaihai Motor City Project in Jiangsu

In April 2018, the Group entered into a 3MW sales contract with Yancheng Huanghai New Energy Development and Operation Co., Ltd. (鹽城黃海新能源開發運營有限公司), in relation to the Yancheng Haiwaihai Motor City project in Jiangsu with a contract sum of approximately RMB52.6 million, out of which, the amount of RMB15.78 million has already been received. The project adopts the 240W flexible thin-film cell modules from MiaSole, a R&D center of Hanergy in Silicon Valley, the USA. This is the largest distributed flexible thin-film solar power plant project of Hanergy in the world. The installation was completed and connected to the grid at the end of December 2018.

Yancheng Haiwaihai Motor City, being the largest automotive after-sales service market in northern Jiangsu, occupies an area of 260 acres and offers comprehensive services including purchase and sales of used cars, auto supplies, auto beauty and repairs, financial insurance, cultural exhibitions, auto e-commerce and others.



業務回顧(續)

C. 下游業務(續)

屋頂分布式太陽能發電市場(續)

案例：江蘇鹽城海外海汽車城項目

二零一八年四月，本集團與鹽城黃海新能源開發運營有限公司簽署3MW江蘇鹽城海外海汽車城項目銷售合同，合同金額約人民幣5,260萬元，已經收取回款人民幣1,578萬元。該項目採用來自漢能美國硅谷研發中心MiaSolé公司的240W柔性薄膜電池組件，是目前漢能全球規模最大的柔性薄膜太陽能分佈式电站項目，已於二零一八年十二月底完成安裝及併網。

鹽城海外海汽車城為蘇北地區最大的汽車後服務市場，其佔地面積260畝，集二手車交易、汽車用品、美容快修、金融保險、文化會展、汽車電商及綜合服務功能於一體。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Roof-top Distributed Solar Power Generation Market (continued)

Case: Solar Power Flower Umbrellas Project in the International Pavilion at the Beijing International Horticultural Exhibition

The International Horticultural Exhibition 2019, Beijing, China (referred to as “Beijing IHE”) is one of the international exhibitions organized by the Chinese government (as the organizer) and Beijing City. As one of the three core buildings within the exhibition and the largest stadium construction, the International Pavilion has a GFA of approximately 22,000 square meters. Leveraging the “flower umbrellas” as its basic elements, it connects steel bollards with overhanging steel beams to create 94 “flower umbrellas” which connect with each other on the top, presenting a rooftop clustering with “flowers”. The “flower umbrellas” consist of 6 aluminum veneers in the shape of leaves. By setting the Group’s MiaSolé flexible solar energy modules on top of the aluminum veneers, the combination becomes flakes of solar energy flowers with total installed capacity of 10KW. According to the estimation, after installing Hanergy’s flexible modules, one flower umbrella can generate around 10,100 kWh of electricity each year, reducing standard coal consumption of 3.23 tones and carbon emissions of 9.41 tones, which are equivalent to planting 514 trees. This result fully echoes the theme of “Green life • Beautiful Home” of Beijing IHE.



業務回顧(續)

C. 下游業務(續)

屋頂分布式太陽能發電市場(續)

案例：北京世園會國際館太陽能花傘項目

二零一九年中國北京世界園藝博覽會(簡稱「北京世園會」)，屬世博會範疇，由中國政府主辦、北京市舉辦。作為園區的三大核心建築之一、也是面積最大的場館建築，國際館總建築面積約22,000平方米，它以「花傘」為基本元素，94把由鋼柱和懸挑鋼樑構成的「花傘」在頂部花瓣處相互連接，構成了如同「花海」般的屋頂。「花傘」由6片葉狀的鋁單板組成，本集團的MiaSolé柔性太陽能組件鋪設在鋁單板上，與鋁單板結合成一片片總裝機量為10KW的太陽能花瓣。據測算，鋪上漢能柔性組件後，一棵花傘一年約可發電1.01萬度，節省標準煤3.23噸，減少碳排放9.41噸，相當於種了514棵樹，與北京世園會「綠色生活•美麗家園」的主題完美契合。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Hong Kong Ushers in Solar Energy Development

To promote the development of renewable energies in Hong Kong, Hong Kong Government signed a Scheme of Control Agreement for a term of 15 years with two local power companies which came into effect in 2018. Pursuant to the Agreement, Hong Kong Government requires the two power companies to purchase electricity generated by renewable energies from residential/industrial/commercial users which are connected to the public grid at subsidized on-grid tariff. With the implementation of this plan, the number of residential/industrial/commercial users installing solar power generation systems in Hong Kong has been gradually increasing.

In 2018, the Group completed several rooftop power station projects at various location in the New Territories, Hong Kong, such as the Sha Tau Kok farm project, container house MARKBOX project in Pat Heung, Yuen Long and small village house projects in Yuen Long were completed in the first half of 2018. In the second half of the year, several projects including the Sha Tin Rural Committee project, the warehouse project in Pat Heung, Yuen Long and HanTile and SHJ projects in Tai Po Hong Lok Yuen were launched. The Group will continue to expand its solar energy application business in Hong Kong aggressively through the cooperation with distributors and partners.

業務回顧 *(續)*

C. 下游業務 *(續)*

香港地區迎來太陽能發展

為促進可再生能源在香港的發展，香港特區政府與香港兩家電力公司簽署為期十五年的《管制計劃協議》，於二零一八年正式生效。香港特區政府要求兩家電力公司須以補貼性上網電價，向住宅／工商用戶購買由可再生能源產生的電力，並接駁至公共電網。隨著該計劃的推行，香港安裝太陽能發電系統的住宅／工商用戶數目逐漸增加。

二零一八年內，本集團已在香港新界各地完成數個屋頂電站項目，例如於二零一八年上半年落地的香港沙頭角農莊項目、元朗八鄉MARKBOX標誌貨櫃屋項目及元朗丁屋項目等，下半年亦新增沙田鄉事委員會項目、元朗八鄉貨倉項目及大埔康樂園漢瓦及SHJ項目等多個項目。本集團將繼續通過與經銷商及合作夥伴的合作，積極拓展香港地區的太陽能應用業務。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Hong Kong Ushers in Solar Energy Development (continued)

Case: The 40KW Project in Sha Tau Kok, Hong Kong

In 2018, the 40KW Sha Tau Kok project in Hong Kong was formally completed. The project adopts Hanergy's MiaSole flexible thin-film modules with an installed capacity of 40KW. As the project is categorised as a system with an installed capacity ranging from 10KW to 200KW, the project owner can sell the electricity at HK\$4 per kWh of electricity to the power companies according to the Scheme of Control Agreement, and enjoy a stable revenue stream for 15 years.



業務回顧 *(續)*

C. 下游業務 *(續)*

*香港地區迎來太陽能發展 *(續)**

案例：香港沙頭角40KW項目

二零一八年，香港沙頭角40KW項目正式建成。本項目採用漢能MiaSole柔性薄膜組件，裝機容量40KW，屬裝機容量10千瓦以上、200千瓦以下系統。根據《管制計劃協議》，項目方可以每度電電價4港元售予電力公司，獲得十五年的穩定收益。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Hong Kong Ushers in Solar Energy Development (continued)

Case: The Demonstration Project of SHJ Product at Tai Po Hong Lok Yuen Villas, Hong Kong

The SHJ demonstration project at Tai Po Hong Lok Yuen villas in Hong Kong adopts SHJ high-efficiency solar modules with an installed capacity of 9.3KW. The project, being adjacent to the HanTile demonstration project, is the first SHJ high-efficiency solar energy demonstration project in Hong Kong, and together they demonstrate remarkable attraction.



業務回顧 *(續)*

C. 下游業務 *(續)*

*香港地區迎來太陽能發展 *(續)**

案例：香港大埔康樂園別墅SHJ產品示範項目

香港大埔康樂園別墅SHJ示範項目於採用SHJ高效太陽能組件，裝機容量9.3KW。該項目是香港首個SHJ高效太陽能示範項目，毗鄰漢瓦示範項目，共同展示矚目的示範效果。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Hong Kong Ushers in Solar Energy Development (continued)

*Case: The HanTile and SHJ Demonstration Project at
Tai Po Constellation Cove Villas in Hong Kong*

The HanTile and SHJ demonstration project at Tai Po Constellation Cove villas in Hong Kong adopts both “HanTile” and SHJ high-efficiency solar energy modules with an installed capacity of 6.9KW. By using two types of innovative green building materials - “HanTile” and SHJ high-efficiency solar energy modules, the products are shown to the mid- to high-end residential communities with a forward-looking demonstration effect.



業務回顧 *(續)*

C. 下游業務 *(續)*

*香港地區迎來太陽能發展 *(續)**

*案例：香港大埔滌濤山別墅漢瓦及SHJ
示範項目*

香港大埔滌濤山別墅漢瓦及SHJ示範項目，同時採用漢瓦及SHJ高效太陽能組件，裝機容量6.9KW。該項目使用漢瓦及SHJ兩種高效太陽能創新性綠色建材，在中高端住宅社區展示，極具前瞻性的示範效果。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Entering the New Era of Mobile Energy

The new era of mobile energy is a result of the constant development and progress of thin film solar technology. Mobile energy is characterised by decentralisation, better energy utilisation, and improved efficiency compared with traditional centralised power stations. In 2018, the Group continued to make breakthroughs in several mobile energy markets including green transportation, aerospace and consumer goods.

Green Transportation to Create a Low Carbon City

Green Transportation solution aims to ease the tension of energy supply for transportation and change the overall layout of energy supply in the transportation system. The thin film solar energy technology can be applied to new energy vehicles, intelligent bus station platforms, parking shed signaling systems, lighting, highway energy, cruise port and others. Electricity is generated during day-time and supplied through night to bring down power supply requirement for urban transportation and reduce energy consumption and pollution.

In 2018, the Group signed a product strategic cooperation agreement with China FAW Group Corporation (“FAW”), a giant state-owned automobile manufacturer directly under the Central Government. Pursuant to the agreement, the parties commenced multi-directional strategic cooperation on the theme of “Green Energy and Energy Conservation”, and push for the mass production of green vehicles through joint-development, with an aim to make innovative breakthroughs in the passenger vehicle market. In addition, the Group also launched a project with Ruichi Automobile Systems Co., Ltd. in the cooperation of low-speed electric vehicles, marking a new milestone in green transportation development driven by thin film solar car roof panels.

業務回顧 *(續)*

C. 下游業務 *(續)*

邁進移動能源的新時代

邁進移動能源的新時代，是薄膜太陽能技術不斷發展進步的成果。移動能源具有去中心化的特點，與傳統的集中式電站發電相比，更有利能源的利用及更具效益。二零一八年，本集團在綠色交通、航空航天及消費品等多個移動能源市場繼續取得突破性進展。

綠色交通 共創低碳城市

綠色交通解決方案主要為了緩解交通所需的能源供應，整體佈局交通系統能源供應，將太陽能薄膜技術應用於新能源汽車、智能公交站台、停車棚信號能源、照明、高速公路能源、郵輪港口等領域，通過白天發電、夜間供電，為城市交通減少市政供電，降低能耗和污染。

二零一八年，本集團與中央直屬國有特大型汽車生產企業中國第一汽車集團有限公司（「一汽」）簽署產品戰略合作協議，雙方以「綠色節能」為主題展開全方位戰略合作，並以聯合開發方式推進量產，創造乘用車市場創新性突破。此外，本集團更與瑞馳汽車系統有限公司展開低速電動車項目，開啟薄膜太陽能車頂驅動綠色交通新里程。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Entering the New Era of Mobile Energy (continued)

Green Transportation to Create a Low Carbon City (continued)

Case: Low-Speed Electric Vehicle Project of Ruichi

In May 2018, the Group entered into a sales contract with Ruichi Automobile Systems Co., Ltd. ("Ruichi Auto") in relation to the installation of thin-film solar roof panels for 100 Ruichi Ruiyi electric vehicle samples for trial. Subsequently, the Group and Ruichi Auto entered into another strategic cooperation agreement totaling approximately RMB100 million to provide solar energy solutions for a total of 49,300 units of six vehicle models with same car roof areas. A total of 100 Ruichi Ruiyi electric vehicle samples have already been delivered in June 2018.

Ruichi Automobile Systems Co., Ltd. is mainly engaged in the research and development and manufacturing of new energy vehicle-related products. Taking advantage in its research and development capability and product quality, it is ranked among the top five low-speed electric vehicle enterprises in China. The addition of Hanergy's thin-film solar roof panels introduces a new element for Ruichi, and the thin-film solar roof panel represents a "solar energy range extender" to vehicles, which will help drive up sales and enhance brand influence. This is a representative and exemplary low-speed electric vehicle project in China.



業務回顧 *(續)*

C. 下游業務 *(續)*

*邁進移動能源的新時代 *(續)**

*綠色交通 共創低碳城市 *(續)**

案例：瑞馳低速電動車項目

二零一八年五月，本集團與瑞馳汽車系統有限公司（「瑞馳汽車」）簽署銷售合同，為一百台瑞馳瑞易電動汽車樣車安裝薄膜太陽能車頂作試驗性質。及後，本集團與瑞馳汽車簽署另一份總額約人民幣一億元的戰略合作協議，為合共49,300台六款車頂面積一致的車型提供太陽能解決方案。合共一百台瑞馳瑞易電動汽車樣車已於二零一八年六月完成交付。

瑞馳汽車系統有限公司主要從事新能源汽車相關產品的研發和製造，憑借研發優勢、產品優勢，成為國內排名前五的低速電動車企業。漢能的薄膜太陽能車頂的介入為瑞馳導入新元素，薄膜太陽能車頂相當於給汽車增加了一個「太陽能增程器」，有助刺激銷量增長，提高品牌效應，是國內具有代表意義及示範性作用的低速電動車項目。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Entering the New Era of Mobile Energy (continued)

Aerospace: A New Breakthrough in Thin Film Technology Applications

Solar-powered aerial vehicles mainly include drones, spacecrafts, hot air balloons and airships, among which, drones are the most typical applications widely used in the military, civilian and commercial markets. In 2018, by making full use of the thin-film solar chip technology, the Group has commenced several projects with aerospace giants including the National Aeronautics and Space Administration (NASA) and Boeing Company of the United States, making remarkable progress in solar energy applications in the aerospace field.

Case: Solar-Powered Unmanned Aircraft Project Launched by Boeing

Alta Devices, the US subsidiary of the Group, supported Aurora Flight Sciences, a subsidiary of the aviation industry giant Boeing Company in the USA, in introducing a solar-powered unmanned aircraft - Odysseus. Odysseus has a wingspan of 74 meters, covered with Hanergy's Gallium Arsenide (GaAs) thin film solar cells, which enable it to fly infinitely powered by solar energy, and it has the largest payload capacity of long-lasting solar aviation at present.

Odysseus is currently in the process of ground testing, upon the completion of which, it will be delivered to Puerto Rico for flight testing by the end of February 2019, and is scheduled to commence flight operations in April this year, with an aim to fly for three consecutive months nonstop.



業務回顧 *(續)*

C. 下游業務 *(續)*

*邁進移動能源的新時代 *(續)**

航空航天 薄膜技術應用新突破

太陽能驅動飛行器主要包括無人機、太空飛船及熱氣球和飛艇等，其中無人機是最典型的應用，可廣泛應用於軍用、民用和商用市場。二零一八年，本集團充分利用薄膜太陽能芯片技術，分別與美國國家航空航天局(NASA)、美國波音公司等航空航天巨擘展開各種項目，在航空航天領域的太陽能應用取得矚目進展。

案例：波音推出太陽能自動駕駛飛機項目

本集團旗下的美國子公司阿爾塔設備公司(Alta Devices)協助美國航空工業巨擘波音公司旗下極光飛行科學公司，推出太陽能無人駕駛飛機－奧德修斯(Odysseus)。翼展長達74米的奧德修斯，表面覆蓋著漢能所提供的砷化鎵(GaAs)薄膜太陽能電池，令其可靠太陽能提供動力進行無限飛行，並擁有當今持久性太陽能航空中最大的有效荷載能力。

目前奧德修斯正進行地面測試，完成後將於二零一九年二月底運至波多黎各進行飛行測試，並計劃同年四月正式啟航。其目標是能三個月不停站飛行。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Entering the New Era of Mobile Energy (continued)

Aerospace: A New Breakthrough in Thin Film Technology Applications (continued)

Case: NASA Conducts A Test on the Group's GaAs Thin Film Solar Technology

Based on the years of cooperation with the engineers from Hanergy's Alta Devices, Marshall Space Flight Center (MSFC) of the National Aeronautics and Space Administration (NASA) selected the GaAs thin film solar cells of Hanergy's Alta Devices to participate in the mission of The International Space Station Data Experiment (MISE-X) in November 2018 and conducted a test to assess whether it can be used in NASA's low-Earth orbit missions in future, including powering CubeSats.

Working jointly with NASA's scientists and suppliers, the Group's engineers developed nine pieces of flexible GaAs solar cell modules using innovative packaging materials. Upon completion of production in the first half of 2018, these cells were delivered to NASA for testing. In August, the integration of solar cells and sample carriers was carried out at the Alpha space facility in Houston, the U.S.A. On 17 November, the experiment project was transported by NG-10 Antares rocket to the International Space Station, with the Group's solar cells installed on the top side of the International Space Station. This test will last for one year, after which the solar cells will be sent back to NASA and the Group for evaluation. Both parties have developed scientific models to simulate the situation of solar cells in orbit. The final sample evaluation will facilitate the research team to improve their models and enhance the accuracy of solar cells and packaging efficiency during long missions in the future.

業務回顧 *(續)*

C. 下游業務 *(續)*

*邁進移動能源的新時代 *(續)**

*航空航天 薄膜技術應用新突破 *(續)**

案例：NASA對本集團砷化鎵薄膜太陽能科技開展測試

基於與漢能Alta Devices公司工程師的多年合作，美國國家航空航天局(NASA)旗下馬歇爾航天飛行中心(MSFC)選擇漢能Alta Devices公司的GaAs薄膜太陽能電池芯片，參加二零一八年十一月的「國際空間站數據實驗(MISE-X)」飛行任務並開展測試，評估其未來是否可用於NASA低地球軌道飛行任務，包括為立方體衛星(CubeSats)提供動力。

本集團工程師與NASA科學家和供貨商合作，用創新的封裝資料研製了9塊柔性GaAs太陽能電池數組。這些電池在二零一八年上半年製造完成，交付給NASA進行測試。八月，在美國休斯敦的Alpha空間設施進行了太陽能電池與樣品運載器的集成。十一月十七日，實驗項目由NG-10 Antares火箭運往國際空間站，並將本集團的太陽能電池安裝在國際空間站面向天頂的位置。這項測試將歷時一年。此後，太陽能電池將被送回NASA和本集團進行評估。雙方已經開發了科學模型，來仿真太陽能電池在軌道上面臨的情況，最終的樣本評估將支持研究小組改進他們的模型，提升與太陽能電池和封裝效能未來長期任務中的準確性。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Diversified and Innovative Applications to Meet the Huge Consumer Market

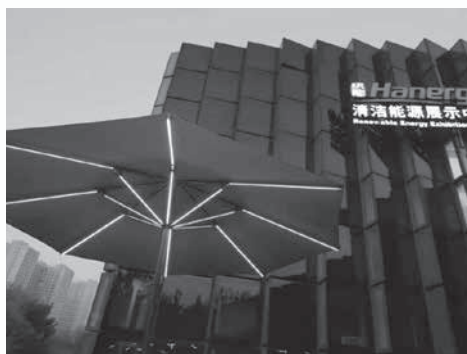
Through continuous technological breakthroughs and innovative research and development, the Group has developed a series of mobile solar energy products applicable for consumer use, to meet the demand for mobile energy solutions in different markets. In the past few years, the Group has introduced the portable thin-film solar energy-powered backpack “HanPack”, thin-film solar energy-powered paper “HanPaper”, portable thin-film solar energy emergency power box, thin-film solar energy clothing, etc. by applying solar energy power generation to daily life. In 2018, the Group launched “Humbrella”, the first multi-functional umbrella based on flexible thin-film solar power generation technology in the world. It also launched the Humbrella charity project “Lighting Africa”, providing local areas with mobile energy solutions through donation of “Humbrella” to the African regions.

業務回顧 *(續)*

C. 下游業務 *(續)*

多元化創新應用 滿足龐大消費市場

本集團通過持續技術突破及創新研發，研發出一系列用於消費品的移動太陽能應用產品，務求滿足各類市場對移動能源解決方案的需求。過去幾年，集團推出了可攜式薄膜太陽能發電背包「漢包」、薄膜太陽能發電紙「漢紙」、便攜式薄膜太陽能應急電源箱、薄膜太陽能服裝等，將太陽能發電應用到日常生活中。二零一八年，集團推出了全球首款基於柔性薄膜太陽能技術的多功能傘「漢傘」，還啟動了「點亮非洲」漢傘公益項目，通過向非洲地區免費捐贈「漢傘」，向當地提供移動能源解決方案。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Diversified and Innovative Applications to Meet the Huge Consumer Market (continued)

For the convenience of the customers in making purchases of the Group's thin film power products, the Group has established its own dedicated network of channels for the sale of its products. These include the self-operated official online shop website "Hanergy Shop", the online flagship store Tmall, the online flagship store JD.com, other major e-commerce platform franchise stores, network distributor channel, online agent channel as well as vertical industries and website channels. The objective is to establish a multifaceted sales channel platform with online and offline, nation-wide coverage. In 2018, sales of PV application products contributed a revenue of approximately HK\$28 million to the Group.

Precise Poverty Alleviation to Promote Economic Development

In 2018, the Group continued to respond to the national policy of "precision poverty alleviation", by making full use of the land resources of rural poor households to help realize precision poverty alleviation. The poor households who participated in precise poverty alleviation not only can have the ownership of solar energy-powered equipment, but can also enjoy the economic benefits from feeding the excess power generated to the grid after their own use.

During the year, the Group continued to focus on solar precision poverty alleviation projects and completed the installation of PV systems for 21 villages in the 615KW PV poverty alleviation project of Boli County, Qitaihe City, Heilongjiang Province, which has been connected to the grid for power generation. The estimated annual income per poor household was approximately RMB3,000, practically helping to realize poverty alleviation for the villages.

業務回顧 *(續)*

C. 下游業務 *(續)*

*多元化創新應用 滿足龐大消費市場 *(續)**

為使客戶更方便快捷購買本集團的薄膜發電產品，本集團開通專有的網絡渠道進行營銷，包括自營的官方網上商城網站「漢能商城」、天貓網旗艦店、京東網旗艦店以及其他大型電商平台專營店、網絡經銷商渠道、在線代銷渠道及垂直行業及網站渠道等，銳意打造線上線下、覆蓋全國的立體銷售渠道平台。於二零一八年，銷售光伏應用產品為本集團貢獻約2,800萬港元之收入。

精準脫貧 推動經濟發展

二零一八年，本集團繼續響應國家的「精準脫貧」政策方案，充分利用農村貧困戶的土地資源，助力實現精準脫貧。參與精準脫貧的貧困戶可以得到太陽能發電設備的擁有權，同時獲得除自用電力之外部份電力上網產生的經濟收益。

年內，本集團繼續致力發展太陽能精準脫貧項目，完成黑龍江省七台河市勃利縣615KW光伏扶貧項目21個村的光伏系統安裝，並已正常併網發電，估計為每戶貧困戶帶來每年約人民幣三千元的收益，切實地幫助實現整村脫貧。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

C. Downstream Business *(continued)*

Precise Poverty Alleviation to Promote Economic Development (continued)

Case: PV Poverty Alleviation Project of Guangshan County, Xinyang City, Henan Province

The PV Poverty Alleviation Project of Guangshan County, Xinyang City, Henan Province was completed by Henan Company of the Group jointly with Henan Wanyilian Environmental Technology Co., Ltd. (河南萬意連環境科技有限公司), which was the first PV poverty alleviation demonstration project in Xinyang City, Henan. The project has an installed capacity of 6MW with contract amount of RMB45 million, which has been completed and connected to the grid. The estimated annual power generation capacity will be reaching 9 million kWh. It is planned to help each documented poverty-stricken household in sustainable poverty alleviation with every 5KW PV power station, ensuring that each corresponding poor household of the power station will have an annual income of approximately RMB3,000, and helping the poor to realize precision poverty alleviation in the region.



業務回顧 *(續)*

C. 下游業務 *(續)*

精準脫貧 推動經濟發展 *(續)*

案例：河南省信陽市光山縣光伏脫貧項目

河南省信陽市光山縣光伏脫貧項目由本集團河南公司與河南萬意連環境科技有限公司合作完成，為河南信陽地區首個光伏脫貧示範項目。項目裝機容量為6MW，合同金額達人民幣4,500萬元。項目現已完工及併網，預計年發電量近九百萬度，擬以每5KW光伏電站帶動一戶建檔貧困戶實現持續脫貧，保障電站所對應貧困戶年收入約人民幣三千元，幫助區域貧困人口實現精準脫貧。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW *(continued)*

D. Delivery of Production Lines to Hanergy Hydropower Group (formerly known as “Hanergy Holdings Group”)

Apollo Precision (Fujian) Limited (“Fujian Apollo”, a subsidiary of the Company) entered into two master sales contracts (each of them “Master Sales Contract”) with Hanergy Hydropower in 2010 and 2011, to sell equipment and entire production line for the manufacturing of thin film solar energy modules to Hanergy Hydropower, its subsidiaries and its affiliates (“Hanergy Hydropower Group”). Details of those contracts are set out in the circulars dated 8 July 2010 and 14 November 2011 respectively.

As at 31 October 2013, Fujian Apollo entered into supplementary sales contracts of two Master Sales Contracts with Hanergy Hydropower. Details of those supplementary sales contracts are set out in the circular dated 12 December 2013.

業務回顧(續)

D. 向漢能水力發電集團(前稱「漢能控股集團」)交付生產線

福建鉑陽精工設備有限公司(「福建鉑陽」, 為我們的附屬公司之一)與漢能水力發電分別於二零一零年及二零一一年訂立兩份主銷售合同(各為「主銷售合同」), 以向漢能水力發電、其附屬公司及其聯屬公司(「漢能水力發電集團」)銷售供製造薄膜太陽能組件使用的設備及整套生產線。該等合同的詳情分別載於我們日期為二零一零年七月八日及二零一一年十一月十四日的通函內。

於二零一三年十月三十一日, 福建鉑陽與漢能水力發電訂立兩份主銷售合同的補充銷售合同。該等補充銷售合同的詳情載於我們日期為二零一三年十二月十二日的通函內。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

BUSINESS REVIEW (continued)

業務回顧(續)

D. Delivery of Production Lines to Hanergy Hydropower Group (formerly known as "Hanergy Holdings Group") (continued)

D. 向漢能水力發電集團(前稱「漢能控股集團」)交付生產線(續)

		Master Sales Contract entered into in 2010 (as supplemented in 2013) 於二零一零年訂立並於二零一三年補充的主銷售合同	Master Sales Contract entered into in 2011 (as supplemented in 2013) 於二零一一年訂立並於二零一三年補充的主銷售合同
Total purchase capacity as stipulated in the sales contracts	有關主銷售合同所訂明的總銷售產能	3,000 MW	7,000 MW
Purchase capacity of module equipment and production lines committed by Hanergy Hydropower Group as at 31 December 2018	於二零一八年十二月三十一日漢能水力發電集團已承諾採購的組件設備及生產線產能	0 MW	0 MW
		HK\$' mil 百萬港元	HK\$' mil 百萬港元
Total contract sum	合同總金額	25,800	61,270
Total cumulative advance payment made by Hanergy Hydropower Group as at 31 December 2018	截至二零一八年十二月三十一日，漢能水力發電集團已付出的總累計預付訂金	0	0
Contract revenue recognised in:	已確認合同收入：		
For the year ended 31 December 2010	截至二零一零年十二月三十一日止年度	2,310	0
For the year ended 31 December 2011	截至二零一一年十二月三十一日止年度	1,446	1,009
For the year ended 31 December 2012	截至二零一二年十二月三十一日止年度	0	2,756
For the year ended 31 December 2013	截至二零一三年十二月三十一日止年度	0	3,243
For the year ended 31 December 2014	截至二零一四年十二月三十一日止年度	3,102	2,853
For the year ended 31 December 2015	截至二零一五年十二月三十一日止年度	134	(88)
For the year ended 31 December 2016	截至二零一六年十二月三十一日止年度	39	865
For the year ended 31 December 2017	截至二零一七年十二月三十一日止年度	628	434
For the year ended 31 December 2018	截至二零一八年十二月三十一日止年度	0	0

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

FUTURE OUTLOOK

Global Solar Energy Market

The year 2018 was a year of changes for the solar energy industry. In early 2018, the U.S. government declared a 30% tariff on imported solar panels. On 31 May 2018, the “Notice on Matters in Relation to Photovoltaic Power Generation in 2018” (“531 Notice”) was issued by the Chinese government, which provided regulatory measures for the developmental pace of the solar power generation industry and attracted the global attention. The 531 Notice stimulated the active sales efforts made by domestic solar power generation companies to sell excessive inventories to the overseas market. Coupled with the issue of overcapacity, the global solar energy cost was reduced by 12%. Due to lower cost of equipment, the total investment in the global solar energy industry was approximately US\$130.8 billion in 2018, representing a decrease of 24% year-on-year.

未來展望

全球太陽能市場

二零一八年對於太陽能產業而言是經歷變動的一年。二零一八年初，美國政府宣佈對進口太陽能板徵收高達30%的關稅。於二零一八年五月三十一日，中國政府下發《關於二零一八年光伏發電有關事項的通知》(531通知)，調控太陽能發電行業的發展步伐，引發了全球聚焦關注。531通知促使國內太陽能發電企業積極向海外銷售多餘的貨存，產能過剩更令全球太陽能成本下降了12%。受到設備成本下降影響，二零一八年全球太陽能產業總投資額約1,308億美元，同比減少24%。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

FUTURE OUTLOOK *(continued)*

Global Solar Energy Market *(continued)*

Despite the policy changes, the global solar energy market continued to grow in 2018, driven by the markets in various countries. According to Energy Trend, an international market research institution, newly installed capacity of solar energy amounted to 103GW in 2018 globally. China remains the country which has the largest newly installed capacity of PV in the world, followed by the United States and India.

The market remains optimistic about the prospect of solar power generation industry around the globe. IHS Markit expects that the global installed capacity of PV will increase to 123GW in 2019, representing an increase of 18% as compared with the estimated newly installed capacity in 2018. PV Infolink, a photovoltaic research institution, also believes that the global solar market will recover in 2019. The global PV installed capacity is expected to increase to 112GW. In particular, the demand in China is expected to reach 40GW or above, and the India and US markets will also see accelerated growth. The increase is mainly driven by the diversified pattern of the global solar power generation market. As the geographical coverage of the PV industry has become more extensive, the PV installed capacity will gradually increase around the world, especially in emerging markets. Meanwhile, positive factors including the gradual decrease of overcapacity, strong growth in the demand overseas and the declining PV power generation cost, have all contributed to the growth of global solar power generation in 2019.

未來展望 *(續)*

全球太陽能市場 *(續)*

儘管出現政策上的變化，二零一八年全球太陽能市場在各國市場的帶動下仍有所增長。根據國際市場研究機構Energy Trend的數據顯示，二零一八年全球太陽能新增裝機容量達到103GW。中國繼續保持全球光伏新增裝機量最大國家的地位，其次是美國和印度。

市場對全球太陽能發電行業的發展保持樂觀態度。IHS Markit預計二零一九年全球太陽能光伏裝機量將增加至123GW，較二零一八年預計的新增裝機容量增加18%。光伏研究機構PV Infolink同樣認為二零一九年全球光伏市場將呈復甦現象，全球光伏裝機量有望回升至112GW，其中中國需求有望上升到40GW以上，印度和美國市場亦將開始快速增長。上升動力主要源於全球太陽能發電市場逐漸呈現多樣化格局，隨著光伏產業在地理上的分佈越來越廣泛，光伏裝機量在世界各地將會陸續增長，特別是新興市場。與此同時，產能過剩的問題得以逐步舒緩，海外需求增長強勁，以及光伏發電成本持續下降等利好因素，均有助刺激二零一九年全球太陽能發電的發展。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

FUTURE OUTLOOK *(continued)*

The Solar Energy Market in China

In 2018, China continued to take the leading position in the world in terms of the newly installed capacity and cumulative installed capacity of solar power generation. According to the statistics of the Chinese National Energy Administration (NEA), the cumulative installed capacity of solar power generation in China reached 174GW, representing a year-on-year increase of 34%; the newly installed capacity was more than 44GW, of which, 23GW was attributable to PV power stations and 21GW was attributable to distributed PV.

According to the estimates of China Photovoltaic Industry Association (CPIA), with gradual improvement of solar power curtailment and electricity consumption, and the advancement of the industry reform, the newly installed capacity of PV in the country is expected to reach 40GW or more in 2019, which is likely to rank first in the world again.

未來展望 *(續)*

中國太陽能市場

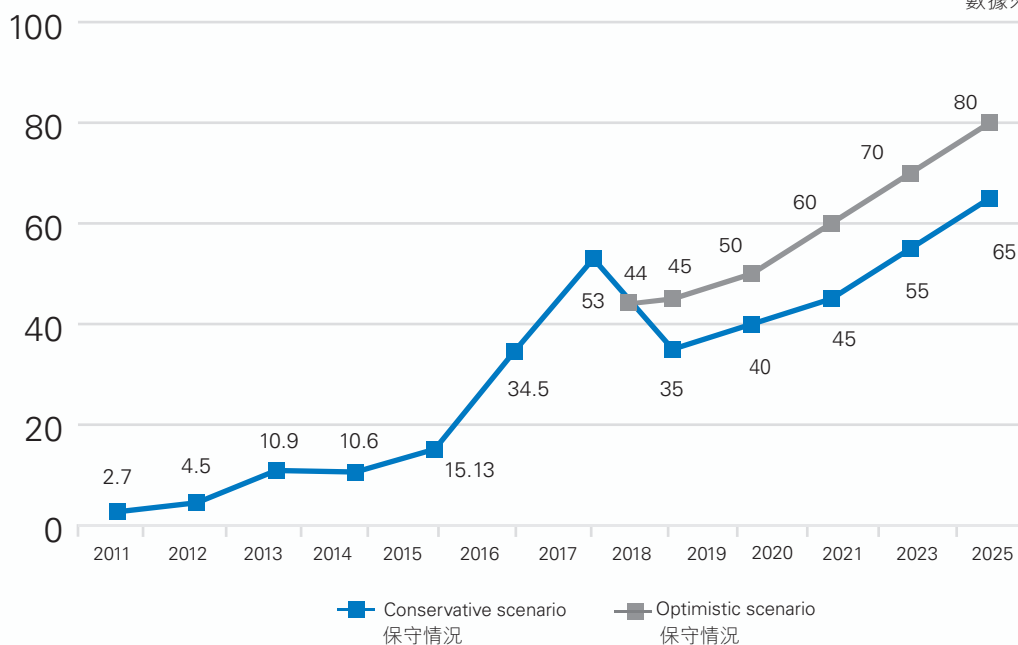
二零一八年，中國太陽能發電新增裝機規模及累計裝機規模繼續位居全球首位，根據中國國家能源局（國家能源局）統計，全國太陽能光伏發電累計裝機容量達到174GW，同比增長34%；新增裝機量超過44GW，其中，光伏電站約23GW，分布式光伏約21GW。

CPIA估計，隨著棄光、消納問題逐步改善，以及行業變革推進，二零一九年全國光伏新增裝機量預計仍將達到40GW以上，有望繼續問鼎全球。

Chart 1: Annual newly installed capacity of PV in 2011-2018 and newly capacity forecasts for 2019-2025 in China (GW)

圖表1：2011-2018年全國光伏年度新增裝機規模以及2019-2025年新增規模預測(GW)

Source: CPIA
數據來源：CPIA



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

FUTURE OUTLOOK *(continued)*

The Solar Energy Market in China *(continued)*

Currently, as modules have been gradually produced domestically with increasing conversion efficiency, the production cost of modules continued to decline, and production output continued to increase. The national production output of modules was 85.7GW in 2018, representing a year-on-year growth of 14%. The production output is expected to continue to increase in 2019.

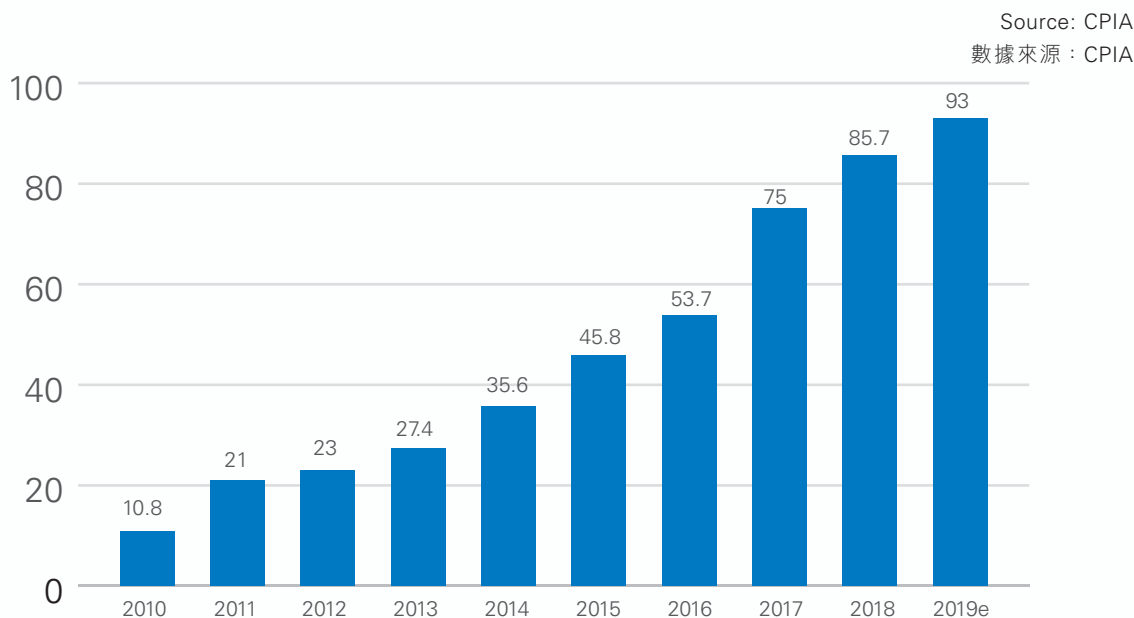
未來展望 *(續)*

中國太陽能市場 *(續)*

目前，隨著組件生產邁向國產化、組件轉換效率不斷提升，組件生產成本持續呈下降趨勢，組件生產量也持續增加。二零一八年全國組件產量為85.7GW，同比上升逾14%，預計二零一九年將繼續保持增長。

Chart 2: The production of solar energy modules in China for 2010-2019 (GW)

圖表2：2010-2019年全國太陽能組件生產情況(GW)



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

FUTURE OUTLOOK *(continued)*

Relevant Policies in China

Action Plan for the Development of Intelligent Photovoltaic Industry (2018-2020)

“The Action Plan for the Development of Intelligent Photovoltaic Industry (2018-2020)” issued by six authorities, including the Ministry of Information and Technology and NEA on 19 April 2018 expressively states the acceleration of the development of advanced manufacturing industry, the enhancement of intelligent manufacturing of solar energy industry, the promotion of profound integration of internet, big data and artificial intelligence with the solar energy industry, the encouragement of solar energy intelligent applications in distinctive industry and the facilitation for the development of China’s solar energy industry towards the middle and high end of global value chain.

Notice on Matters Concerning Easing Burden of Enterprises in Renewable Energy Sector

In April 2018, NEA issued the “Notice on Matters Concerning Easing Burden of Enterprises in Renewable Energy Sector”, which requires the stringent compliance of the Renewable Energy Law to ensure the healthy development of the renewable energy sector; the optimisation of investment environment to reduce the development cost of renewable energy exploitation; implementation of the initiative of “simplified procedures, supervision enhancement and service optimisation” for public services in a bid to stimulate market. The notice provides favorable conditions in respect of market consumption and grid connections, land use measures, financial supports and enhancement of government services and functions for the renewable energy industry, which will ease the investment and operational burden of enterprises in the renewable energy sector, and lead to further cost reduction of renewable energy.

未來展望 (續)

國家相關政策

《智慧光伏產業發展行動計劃(2018-2020年)》

二零一八年四月十九日，工業和信息化部、國家能源局等六部委印發了《智慧光伏產業發展行動計劃(2018-2020年)》，明確：加快發展先進製造業，加快提升太陽能產業智能製造水平，推動互聯網、大數據、人工智能等與太陽能產業深度融合，鼓勵特色行業智能太陽能應用，促進我國太陽能產業邁向全球價值鏈中高端。

《關於減輕可再生能源領域企業負擔有關事項的通知》

二零一八年四月，國家能源局發布《關於減輕可再生能源領域企業負擔有關事項的通知》，《通知》要求嚴格落實《可再生能源法》要求，切實保障可再生能源產業健康發展；優化投資環境，降低可再生能源開發成本；完善政府放管服等公共服務，激發市場活力。該《通知》為可再生能源行業在市場消納及並網要求、用地措施、金融支持及提高政府服務職能方面，帶來新的利好消息，將減輕可再生能源相關企業投資經營負擔，進一步促進可再生能源度電成本下降。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

FUTURE OUTLOOK *(continued)*

Relevant Policies in China *(continued)*

Notice on Matters in Relation to Photovoltaic Power Generation in 2018

On 31 May 2018, the “Notice on Matters in Relation to Photovoltaic Power Generation in 2018” was jointly issued by NDRC, the Ministry of Finance and NEA, which stated that no planned capacity projects for general solar energy power stations construction is arranged for 2018, and 10GW capacity is constructed for the distributed solar energy projects, reducing the on-grid tariff.

As stated in the Notice, the policy aims to promote the healthy and sustainable development of the photovoltaic industry. Notwithstanding that the 531 Notice reduces the subsidy level and regulates the newly constructed capacity of PV power generation, the Chinese government’s long-term planning for the solar power generation industry and the support of distributed solar power generation will continue in promoting the development of solar energy industry in China. The Group believes that the release of the notice will motivate the transformation and innovation of enterprises and optimize the layout of solar energy industry.

Notice on Matters Concerning the Grant of Incentives to Leading Bases of PV Power Generation

On 16 October 2018, the General Department of NEA issued a letter requesting opinions on the “Notice on Matters Concerning the Grant of Incentives to Leading Bases of PV Power Generation” from relevant NDRC (NEA) agencies in relation to the grant of incentives to leading bases as stated in Guo Neng Fa Xin Neng [2017] No. 54.

The notice states that priority or bonus points, if applicable, shall be given to the bases which strictly comply with the requirements, produce as scheduled with output passing the inspection for acceptance (including the second phase). Three incentives of construction capacity totaling 1.5 million KW are granted to the leading bases of PV power generation in 2017.

未來展望 *(續)*

國家相關政策 *(續)*

《關於二零一八年光伏發電有關事項的通知》

二零一八年五月三十一日，國家發改委、財政部、中國國家能源局聯合發布《二零一八年光伏發電有關事項的通知》。《通知》提出，暫不安排二零一八年普通太陽能電站建設規模，規範今年分佈式太陽能項目建設於10GW，並調低上網電價。

誠如《通知》所述，該政策的目的是為了促進光伏行業健康可持續發展，因此即使531通知降低補貼強度、規範光伏發電新增建設規模，但中國政府對太陽能發電行業的長遠規劃及對分佈式太陽能發電的支持，仍將繼續促進中國太陽能行業的發展。本集團相信該通知的發布將激勵企業改革創新，優化太陽能產業的行業格局。

《關於光伏發電領跑基地獎勵有關事項的通知》

二零一八年十月十六日，國家能源局綜合司印發徵求《關於光伏發電領跑基地獎勵有關事項的通知》意見的函，就國能發新能〔2017〕54號中提出的領跑者基地獎勵事宜徵求相關發改委（能源局）的意見。

《通知》指出，優先考慮或適當加分予嚴格落實要求、按期投產且驗收合格的基地（含二期），並對二零一七年光伏發電領跑基地給予3個共150萬千瓦建設規模獎勵激勵。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

FUTURE OUTLOOK *(continued)*

The Company's Vision on Future Development

Implement the "One Base and Two Fronts" Strategy and Expand Diversified Customer Base

The Group will continue to adopt the strategic deployment of "One Base and Two Fronts" in the coming year, that is, based on the continuous innovation of thin film solar technology, and with 'turnkey' solutions for manufacturing equipment and production lines on the left front, and solutions for distributed energy and mobile energy on the right front, it will firmly grasp the opportunities arising from the extensive changes of global energy structure and the rapid development of the thin film solar industry, focusing on the upstream business of equipment production lines, and the downstream business of distributed and mobile energy.

In terms of upstream business, the Group will continue to invest in the research and development of thin film solar technology, and accelerate the localisation of thin film solar equipment production lines, in an effort to achieve 100% localisation rate of equipment production lines of all technology lines of the Group. It will also continue to promote the industrialization, marketization and popularization of thin film solar technology through the cooperation with mobile energy intelligent manufacturing bases in different regions.

Regarding downstream business, in addition to the traditional household and industrial and commercial rooftop power generation systems, the Group will continue to focus on new energy green buildings and mobile energy applications, to build an ecosphere of mobile energy and provide solutions for "Eco-City" through a comprehensive layout of energy in cities. In addition, with the national new energy development strategy, the Group has actively engaged in precision poverty alleviation, by making full use of the land resources of rural poor households to help the poor to realize precision poverty alleviation with additional income.

未來展望 *(續)*

公司未來發展願景

「一基兩翼」戰略 開拓多元客戶

本集團將於來年繼續「一基兩翼」的戰略佈局，即以薄膜太陽能技術的持續創新為基礎，以薄膜太陽能電池製造裝備及產線的「交鑰匙」解決方案為左翼，以分布式能源及移動能源的解決方案為右翼，緊緊抓住全球能源結構深刻變革、薄膜太陽能行業高速發展的奇跡，聚焦於上游裝備及產線業務、下游分布式發電及移動能源業務。

上游業務方面，本集團將繼續投入薄膜太陽能技術的研發，加快推進薄膜太陽能裝備產線的國產化，爭取使集團各技術路線的裝備產線國產化率實現百分之百。本集團亦將通過與各地的移動能源智造基地合作，持續推進薄膜太陽能技術的產業化、市場化及普及。

下游業務方面，除了傳統的戶用及工商業屋頂發電系統外，本集團將繼續以新能源綠色建築及移動能源應用為大方針，通過對城市能源全面佈局，打造移動能源的生態圈和提供「生態城市」解決方案。此外，在國家新能源發展戰略下，本集團積極參與精準脫貧工作，充分利用農村貧困戶的土地資源，幫助貧困群眾實現精準脫貧，為其帶來額外的收益。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

FUTURE OUTLOOK *(continued)*

The Company's Vision on Future Development *(continued)*

Continuous Innovation and Research and Development to Make Further Breakthroughs

In response to the global trend of low-carbon, green and clean energy, the Group has continued to innovate products by leveraging on its innovative scientific research capabilities. In 2018, significant progress in research and development of thin film solar energy application products was made. In April, the Group launched an innovative product, a new generation of HanTile and "Humbrella"; the first multi-functional umbrella based on flexible thin film solar technology in the world. Its first batch of production was donated to Tanzania for the charity project "Lighting Africa". New mobile energy applications such as HanPack and HanPaper were also introduced in June, attracting a lot of market attention. In September, we launched another disruptive new product - "HanWall", which is characterized by its safety and power generation efficiency, and has become the first "green power generation wall system solution" in the world. Since the launch of such new products, we have immediately attracted collaboration from Australia and Japan, demonstrating that the Group has been recognised by customers around the world through product innovation and quality.

Looking forward to 2019, the Group will continue to put more resources in the research and development of product innovation, focusing on three major areas including housing, usage and transportation, constantly develop and introduce new thin-film solar energy solutions, in response to both domestic and international market demand and in line with green buildings and travel trends, and provide users with more comprehensive and convenient mobile power using experience, so as to further consolidate the Group's leading position in the high-tech thin film solar industry.

未來展望 *(續)*

公司未來發展願景 *(續)*

持續創新研發 再求突破

響應低碳、綠色清潔能源的全球趨勢，本集團依托自身的創新科研能力，不斷推陳出新，二零一八年在薄膜太陽能應用產品研發方面取得了重大進展。本集團於四月推出新一代的漢瓦創新新品及全球首款基於柔性薄膜太陽能技術的多功能傘「漢傘」，並在「點亮非洲」公益項目中將首批產品捐贈予坦桑尼亞。於六月推出新款「漢包」、「漢紙」等移動能源應用產品，吸引市場關注。我們於九月再下一城，推出了顛覆性的嶄新產品「漢牆」，兼具安全性與發電效能，成為全球首套「發電牆綠色系統解決方案」。自這些新產品發布後，便迅速吸引澳大利亞及日本市場的合作，證明集團對產品創新及質量的追求獲得各地客戶認可。

展望二零一九年，本集團將繼續投放更多資源在創新產品研發中，圍繞住、用、行三大領域，結合國內外市場需求，順應綠色建築及出行趨勢，不斷開發和推出創新薄膜太陽能解決方案，為使用者提供更全面、方便快捷的移動用電體驗，進一步鞏固集團在高科技薄膜太陽能行業的領導地位。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

FUTURE OUTLOOK *(continued)*

The Company's Vision on Future Development *(continued)*

Focus on Mobile Solar Energy Development and Strengthen the Leading Position in Technology

In recent years, through continuous technological breakthroughs and innovative research and development, the Group has focused on the development of innovative thin-film solar mobile energy applications, including foldable thin-film solar power generation paper, power generation pack, power generation umbrella and other portable mobile energy products to satisfy the market needs. Hanergy has endeavored to expand the application of thin-film solar technology in more fields, and has applied thin-film solar cells in various mobile transportations, including shared bicycles, logistics fleets, unmanned aircrafts, solar-powered vehicles and low-speed electric vehicles. With the energy reform, a new way of life is forming and an exosphere of mobile energy is being created to provide solutions for "Eco-City".

In 2018, the Group entered into a product strategic cooperation agreement with China FAW Group, to commence multi-directional strategic cooperation on the theme of "Green Energy and Energy Conservation". This is an innovative breakthrough in the area of passenger vehicle with the first solar energy sunroof. In addition, since the Group's high-efficiency thin-film solar chip technology has been favored by the National Aeronautics and Space Administration (NASA) and Boeing Company, the giant in the US aviation industry, various projects have been carried out through the cooperation between the Group and NASA and Boeing Company, promoting the in-depth application and further expansion of solar energy technology in the aerospace sector. The robust development of mobile solar energy contributes to energy conservation, emission reduction, environmental protection and cutting-edge applications. The Group also intends to expand the business and cooperation in this sector in the future.

未來展望 *(續)*

公司未來發展願景 *(續)*

著力移動太陽能能源發展 鞏固技術領先地位

近年，本集團通過持續技術突破及創新研發，著力開發各種創新性的薄膜太陽能移動能源應用產品，包括薄膜太陽能摺疊式發電紙、發電包、發電傘等便攜式的移動能源產品，以滿足市場的需要。漢能致力拓展薄膜太陽能技術在更多領域的應用範圍，相繼把薄膜太陽能電池應用於如共享單車、物流運輸車、無人飛機、太陽能汽車、低速電動汽車等多個移動交通領域，以能源變革打造全新的生活方式，締造移動能源的生態圈及「生態城市」解決方案。

二零一八年，本集團與中國第一汽車集團簽署產品戰略合作協議，雙方將以「綠色節能」為主題開展全方位戰略合作，是乘用車市場創新性突破，成為太陽能天窗第一案例。此外，本集團的高效薄膜太陽能芯片技術，分別獲得美國國家航空航天局(NASA)及美國航空工業巨擘波音公司的青睞，與本集團合作展開各種項目，推動太陽能技術在航空航天領域的深入應用和進一步開拓。移動太陽能的大力發展有助於實現節能減排、綠色環保及尖端應用，本集團日後亦將繼續深化在此方面的業務及合作。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

FUTURE OUTLOOK *(continued)*

The Company's Vision on Future Development *(continued)*

Focus on Mobile Solar Energy Development and Strengthen the Leading Position in Technology (continued)

Looking forward to 2019, the Group will, leveraging on its high-tech R&D capabilities and economies of scale, continue to push forward the turnkey projects of thin film solar production lines for mobile energy industrial parks and other new clients in respect of our upstream business, and expand the solar energy applications in areas including distributed power and mobile energy for downstream business, by actively exploring the diversified applications of thin-film solar energy for the pursuit of further innovations. Meanwhile, the Group will continue to capture the opportunity arising from the state's favourable policies on clean energies and ride on the global trend of solar energy power generation, by actively expanding domestic and overseas businesses, and further capitalizing on its leading role as a provider of high-tech thin-film solar energy solutions, in order to bring thin film solar energy power generation to a bigger market for unlimited number of applications!

未來展望 *(續)*

公司未來發展願景 *(續)*

著力移動太陽能能源發展 鞏固技術領先地位 (續)

展望二零一九年，本集團將憑藉自身的高技術研發能力及規模優勢，上游持續推動移動能源產業園及其他新客戶的薄膜太陽能產線交鑰匙工程；下游不斷發展分佈式發電和移動能源等多領域太陽能應用，積極探索薄膜太陽能的多元化應用，務求再創新猷。同時，本集團將繼續把握國家政策對清潔能源支持的契機，抓緊全球太陽能發電的大趨勢，積極拓展國內及海外業務，進一步發揮集團作為高科技薄膜太陽能解決方案提供者的領先作用，將薄膜太陽能發電推向更廣闊市場，實現讓萬物發電！

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

SUSPENSION OF TRADING

Trading in the Company's shares has been suspended with effect from 10:40 a.m. on 20 May 2015. The Company received a letter from the Securities and Futures Commission ("SFC") dated 15 July 2015 in relation to the Rule 8(1) direction of Stock Market Rules, in which SFC directed the Stock Exchange to suspend trading in the securities of the Company. As of 31 December 2018, the shares of the Company remained suspended. A separate announcement on further information, if any, will be made in due course to inform the shareholders and potential investors of the Company.

Amendments to the delisting framework under the Rules Governing the Listing of Securities (the "Listing Rules") on The Stock Exchange of Hong Kong Limited (the "Stock Exchange") have been made, with the effect from 1 August 2018 ("Effective Date"). The transitional arrangements for the amendments to the delisting framework will apply to the Company. As the shares of the Company have been suspended from trading for more than 12 months, in accordance with Rule 6.01A(2)(b)(ii) of the Listing Rules, the Stock Exchange may cancel the Company's listing if trading in the shares has remained suspended for 12 consecutive months from the Effective Date. The 12-month period will expire on 31 July 2019. If the Company fails to resume trading in the shares of the Company by 31 July 2019, the Listing Department of the Stock Exchange will recommend the Listing Committee of the Stock Exchange to proceed with the cancellation of the Company's listing. This is subject to the Stock Exchange's right to impose a shorter specific remedial period under Rule 6.10 of the Listing Rules where appropriate.

暫停股票買賣

本公司股票於二零一五年五月二十日上午十時四十分起暫停買賣。根據本公司收到證券及期貨事務監察委員會(「證監會」)所發出日期為二零一五年七月十五日有關證券市場規則第8(1)條指令之函件，指令香港聯交所暫停本公司股票買賣。截至二零一八年十二月三十一日，本公司股份繼續停牌。如有進一步消息，將於適當時候另行刊發公佈，以知會本公司股東及潛在投資者。

香港聯合交易所有限公司(「聯交所」)證券上市規則(「上市規則」)修訂除牌架構，已於二零一八年八月一日(「生效日期」)生效，該修訂除牌架構的過渡安排將適用於本公司。由於本公司股份停牌已經超過十二個月，倘若股份自生效日期起再連續十二個月繼續停牌，則聯交所可根據上市規則第6.01A(2)(b)(ii)條，取消本公司的上市地位。十二個月期限將於二零一九年七月三十一日屆滿。倘若本公司於二零一九年七月三十一日期限屆滿之前，未能恢復本公司股份之買賣，聯交所上市部將向聯交所上市委員會建議取消本公司之上市地位。在適當情況下，聯交所有權根據上市規則第6.10條實施較短的特定補救期限。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

LIQUIDITY AND FINANCIAL RESOURCES

As at 31 December 2018, the Group had interest-bearing bank and other borrowings of HK\$686,793,000 (31 December 2017: HK\$1,126,008,000) while the cash and cash equivalents amounted to approximately HK\$359,049,000 (31 December 2017: approximately HK\$2,496,760,000). Gearing ratio (total debt less cash and cash equivalent, tax payable, deferred income, other noncurrent liabilities and deferred tax liabilities ("Net Debt") over adjusted capital and net debt) as at 31 December 2018 was 49.00% (31 December 2017: 47.86%).

TREASURY POLICIES AND EXCHANGE & OTHER EXPOSURES

The Group's monetary transactions and deposits continued to be in the form of US dollars, Renminbi and Hong Kong dollars. The Group expected that the exposure to exchange rates fluctuation was not significant and therefore had not engaged in any hedging activities.

CONTINGENT LIABILITIES

The Group did not have any significant contingent liabilities as at 31 December 2018 (31 December 2017: Nil).

流動資金及財務資源

於二零一八年十二月三十一日，本集團之銀行及其他付息借款為686,793,000港元(二零一七年十二月三十一日：1,126,008,000港元)，而現金及現金等價物則約為359,049,000港元(二零一七年十二月三十一日：約2,496,760,000港元)。於二零一八年十二月三十一日，資本負債比率(債務總額減現金及現金等價物、應付稅項、遞延收入、其他非流動負債及遞延稅項負債(「債務淨額」)除以經調整資本及債務淨額)為49.00%(二零一七年十二月三十一日：47.86%)。

庫務政策及匯兌及其他風險

本集團之貨幣交易及存款繼續以美元、人民幣及港元結算。本集團預期匯率波動風險並不重大，故並無進行任何對沖活動。

或然負債

於二零一八年十二月三十一日，本集團並無任何重大或然負債(二零一七年十二月三十一日：無)。

MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

CHARGES ON ASSETS

As at 31 December 2018 and 31 December 2017, the Group's subsidiaries have charged assets as security for the bank borrowings (The details are set out in note 26 Interest-bearing bank and other borrowings).

MAJOR CUSTOMERS AND SUPPLIERS

For the year ended 31 December 2018, information on sales and purchases relating to the major customers and suppliers is summarized as follows:

		2018 二零一八年	2017 二零一七年
Sales (Percentage over total sales)	銷售 (佔總銷售額百分比)		
The largest customer	最大客戶	14%	40%
Five largest customers	五大客戶	46%	71%
Purchases (Percentage over total purchases)	採購 (佔總採購額百分比)		
The largest supplier	最大供應商	11%	17%
Five largest suppliers	五大供應商	27%	40%

At 31 December 2018, Shenzhen Tong Fu Shidai Trading Co., Ltd. was the Group's largest customer. All transactions between the Group and the customer concerned were carried out on normal commercial terms.

Other than Hanergy Holding and its affiliates (collectively "Hanergy Affiliates"), none of the directors of the Company (the "Director"), their associates, or any shareholder of the Company which to the knowledge of the Directors owns more than 5% of the Company's issued share capital had a beneficial interest in any of the Group's five largest customers or five largest suppliers for the year ended 31 December 2018.

資產抵押

於二零一八年十二月三十一日及二零一七年十二月三十一日，本集團之附屬公司有抵押資產用作銀行借款之抵押品（詳情請查看附註26銀行及其他付息借款）。

主要客戶及供應商

截至二零一八年十二月三十一日止年度，有關主要客戶及供應商之銷售及採購資料概述如下：

於二零一八年十二月三十一日，深圳市同富時代貿易有限公司為本集團之最大客戶。本集團與該客戶進行之所有交易均按一般商業條款進行。

除漢能控股及其聯屬公司（統稱「漢能聯屬公司」）外，截至二零一八年十二月三十一日止年度，本公司各董事（「董事」）、彼等之聯繫人士或據董事所知擁有本公司已發行股本5%以上之任何本公司股東概無擁有本集團任何五大客戶或五大供應商之實益權益。



MANAGEMENT DISCUSSION AND ANALYSIS

管理層討論及分析

PERSONNEL

The number of employees of the Group as at 31 December 2018 was 6,542 (31 December 2017: 4,250) of whom 3,334 (31 December 2017: 695) were office administration staff. Remuneration of employees and directors are determined according to individual performance and the prevailing trends in different areas and reviewed on an annual basis. The Group has also contributed mandatory provident fund, retirement funds and provided medical insurance to its employees. Bonuses are awarded based on individual performance and overall Group performance, and are made to certain employees of the Group.

Remuneration of employees and directors are determined according to individual performance and the prevailing trends in different areas and reviewed on an annual basis. The Group has also contributed mandatory provident fund, retirement funds and provided medical insurance to its employees.

Bonuses are awarded based on individual performance and overall Group performance, and are made to certain employees of the Group.

員工

於二零一八年十二月三十一日，本集團之僱員人數為6,542人（二零一七年十二月三十一日：4,250人），其中3,334人（二零一七年十二月三十一日：695人）為辦公室行政人員。員工及董事薪酬乃按照個人表現及不同地區之現行薪金趨勢而釐定，並每年進行檢討。本集團亦向員工作出強積金及退休金供款，並提供醫療保險。本集團根據個別人員表現及集團整體表現而向若干本集團僱員發放花紅。

員工及董事薪酬乃按照個人表現及不同地區之現行薪金趨勢而釐定，並每年進行檢討。本集團亦向員工作出強積金及退休金供款，並提供醫療保險。

本集團根據個別人員表現及集團整體表現而向若干本集團僱員發放花紅。

REPORT OF THE DIRECTORS

董事會報告

The Directors have pleasure in submitting their annual report together with the audited financial statements for the year ended 31 December 2018.

PRINCIPAL ACTIVITIES

The principal activity of the Company is investment holding. During the year under review, the Group's revenue and operating profit were derived principally from the manufacture of equipment and turnkey production lines for the manufacture of both amorphous silicon based and CIGS thin film solar photovoltaic modules and sale of solar power stations and rooftop power stations.

OPERATING SEGMENT INFORMATION

Details of operating segment information of the Group during the year are set out in note 4 to the consolidated financial statements.

RESULTS AND APPROPRIATIONS

The results of the Group for the year ended 31 December 2018 and the state of the Group's affairs as at that date are set out in the consolidated financial statements on pages 126 to 318.

DIVIDEND

The Board does not recommend to declare a final dividend for the year ended 31 December 2018 (2017: Nil).

董事會欣然提呈截至二零一八年十二月三十一日止年度之年報連同經審核財務報表。

主要業務

本公司之主要業務為投資控股。於回顧年度，本集團之收入及經營溢利主要來自於製造矽基薄膜太陽能光伏組件之生產設備及整套生產線，以及銷售太陽能電站及屋頂電站。

經營分部資料

本集團於年內之經營分部資料詳情載於綜合財務報表附註4。

業績及分配

本集團截至二零一八年十二月三十一日止年度之業績及本集團於該日之事務狀況載於綜合財務報表第126頁至第318頁。

股息

董事會不建議派發截至二零一八年十二月三十一日止年度之末期股息(二零一七年：無)。



REPORT OF THE DIRECTORS

董事會報告

ANNUAL GENERAL MEETING AND CLOSURE OF REGISTER OF MEMBERS

To ascertain the entitlement to attend and vote at the annual general meeting of the Company to be held on Wednesday, 12 June 2019 (the "AGM"), the register of members of the Company will be closed from Friday, 7 June 2019 to Wednesday, 12 June 2019 (both dates inclusive) during which period no transfer of shares will be registered. In order to qualify for attending and voting at the AGM, all properly completed transfer forms accompanied by the relevant share certificates must be lodged with the Company's branch share registrar and transfer office in Hong Kong, Tricor Tengis Limited, at Level 22, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong not later than 4:30 p.m. on Thursday, 6 June 2019.

SHARE CAPITAL

Details of movements in the Company's share capital and share options during the year are set out in notes 28 and 29 to the consolidated financial statements.

PURCHASE, SALE OR REDEMPTION OF LISTED SECURITIES

Neither the Company nor any of its subsidiaries purchased, redeemed or sold any of the Company's listed securities for the year ended 31 December 2018.

股東週年大會及暫停辦理股東登記手續

為釐定出席將於二零一九年六月十二日(星期三)舉行之股東週年大會(「股東週年大會」)及於會上投票之資格,本公司將於二零一九年六月七日(星期五)至二零一九年六月十二日(星期三)(包括首尾兩日)暫停辦理股東登記手續,於該段期間內將不會辦理任何股份過戶登記。為符合資格出席股東週年大會並於會上投票,所有填妥之過戶表格連同有關股票,最遲須於二零一九年六月六日(星期四)下午四時三十分前,送達本公司之香港股份過戶登記分處卓佳登捷時有限公司,地址為香港灣仔皇后大道東183號合和中心22樓。

股本

本公司之股本及購股權於年內之變動情況詳情載於綜合財務報表附註28及29。

購買、出售或贖回上市證券

截至二零一八年十二月三十一日止年度,本公司或其任何附屬公司概無購買、贖回或出售任何本公司之上市證券。

REPORT OF THE DIRECTORS

董事會報告

CONTINUING CONNECTED TRANSACTIONS

In accordance with the reporting and announcement requirements under Chapter 14A of the Listing Rules, the Group had the following continuing connected transactions during the year:

(I) Agreements with Sichuan Hanergy

During the period from September 2017 to September 2018, Beijing Juntai Innovation Technology Co., Ltd (“Beijing Juntai”), a subsidiary of the Company, entered into certain agreements with Sichuan Hanergy Photovoltaic Ltd (“Sichuan Hanergy”), a subsidiary of Hanergy Mobile Energy Holding Group Co., Ltd, in relation to the leasing of equipment, and the rental of office premises, factory premises and staff dormitory in Shuangliu County, Sichuan Province, the PRC. Details of the agreements are disclosed below:

(i) Equipment lease agreement

On 15 September 2017, Beijing Juntai entered into an equipment leasing agreement with Sichuan Hanergy, pursuant to which Sichuan Hanergy would lease the production line no. 5 with equipment associated to Beijing Juntai for a term of one year from 16 September 2017 to 15 September 2018. The monthly rental for the production line was RMB310,500. On 1 July 2018, Beijing Juntai entered into an equipment leasing agreement with Sichuan Hanergy, pursuant to which Sichuan Hanergy will lease the production line no. 4 with equipment associated to Beijing Juntai for a term of one year from 20 July 2018 to 19 July 2019. The monthly rental for the production line is RMB100,000.

(ii) Tenancy agreement for office premises

On 15 September 2017, Beijing Juntai entered into a tenancy agreement with Sichuan Hanergy, pursuant to which Beijing Juntai would rent an office premises owned by Sichuan Hanergy for a term of one year from 16 September 2017 to 15 September 2018. The monthly rental for the office premises was RMB19,680.

持續關連交易

根據上市規則第14A章項下之申報及公佈規定，本集團於年內進行以下持續關連交易：

(II) 與四川漢能訂立之協議

於二零一七年九月至二零一八年九月期間，本公司之附屬公司君泰創新（北京）科技有限公司（「北京君泰」）與漢能移動能源控股集團有限公司之附屬公司四川漢能光伏有限公司（「四川漢能」）訂立若干協議，內容有關租賃設備及租用位於中國四川省雙流縣的辦公場所、工廠場所及員工宿舍。該等協議之詳情披露如下：

(i) 設備租賃協議

於二零一七年九月十五日，北京君泰與四川漢能訂立一項設備租賃協議，據此，四川漢能將第5號生產線連相關設備租予北京君泰，由二零一七年九月十六日起至二零一八年九月十五日止為期一年。生產線之月租為每月人民幣310,500元。於二零一八年七月一日，北京君泰與四川漢能訂立一項設備租賃協議，據此，四川漢能會將第4號生產線連相關設備租予北京君泰，由二零一八年七月二十日起至二零一九年七月十九日止為期一年。生產線之月租為每月人民幣100,000元。

(ii) 辦公場所租賃協議

於二零一七年九月十五日，北京君泰與四川漢能訂立一項租賃協議，據此，北京君泰租用一處四川漢能擁有之辦公場所，由二零一七年九月十六日起至二零一八年九月十五日止為期一年。辦公場所之月租為每月人民幣19,680元。

REPORT OF THE DIRECTORS

董事會報告

CONTINUING CONNECTED TRANSACTIONS

(continued)

(I) Agreements with Sichuan Hanergy (continued)

(iii) Tenancy agreement for factory premises

On 15 September 2017, Beijing Juntai entered into a tenancy agreement with Sichuan Hanergy, pursuant to which Beijing Juntai would rent a factory premises owned by Sichuan Hanergy for a term of one year from 16 September 2017 to 15 September 2018. The monthly rental for the factory premises was RMB275,880. On 18 September 2018, Beijing Juntai entered into a tenancy agreement with Sichuan Hanergy, pursuant to which Beijing Juntai would rent a factory premises owned by Sichuan Hanergy for a term of one year from 30 September 2018 to 29 September 2019. The monthly rental for the factory premises is RMB194,898.

(iv) Tenancy agreement for staff dormitory

On 15 September 2017, Beijing Juntai entered into a tenancy agreement with Sichuan Hanergy, pursuant to which Beijing Juntai would rent a staff dormitory owned by Sichuan Hanergy for a term of one year from 16 September 2017 to 15 September 2018. The monthly rental for the staff dormitory was RMB10,800. On 26 July 2018, Beijing Juntai entered into a tenancy agreement with Sichuan Hanergy, pursuant to which Beijing Juntai would rent a staff dormitory owned by Sichuan Hanergy for the period from 15 July 2018 to 15 September 2019. The monthly rental for the staff dormitory is RMB8,000.

持續關連交易(續)

(I) 與四川漢能訂立之補充協議(續)

(iii) 工廠場所租賃協議

於二零一七年九月十五日，北京君泰與四川漢能訂立一項租賃協議，據此，北京君泰租用一處四川漢能擁有之工廠場所，由二零一七年九月十六日起至二零一八年九月十五日止為期一年。工廠場所之月租為每月人民幣275,880元。於二零一八年九月十八日，北京君泰與四川漢能訂立一項租賃協議，據此，北京君泰租用一處四川漢能擁有之工廠場所，由二零一八年九月三十日起至二零一九年九月二十九日止為期一年。工廠場所之月租為每月人民幣194,898元。

(iv) 員工宿舍租賃協議

於二零一七年九月十五日，北京君泰與四川漢能訂立一項租賃協議，據此，北京君泰租用一處四川漢能擁有之員工宿舍，由二零一七年九月十六日起至二零一八年九月十五日止為期一年。員工宿舍之月租為每月人民幣10,800元。於二零一八年七月二十六日，北京君泰與四川漢能訂立一項租賃協議，據此，北京君泰租用一處四川漢能擁有之員工宿舍，為期由二零一八年七月十五日起至二零一九年九月十五日止。員工宿舍之月租為每月人民幣8,000元。

REPORT OF THE DIRECTORS

董事會報告

CONTINUING CONNECTED TRANSACTIONS

(continued)

(II) MiaSolé Service Agreement

On 7 March 2016, MiaSolé Hi-Tech Corp. (“MiaSolé Hi-Tech”), a wholly-owned subsidiary of the Company, and MiaSolé, a wholly owned subsidiary of Hanergy Holding, entered into a service agreement (the “Service Agreement”) pursuant to which MiaSolé Hi-Tech agreed to provide to MiaSolé business and commercial management, accounting and finance, legal, purchasing/procurement, and other general administrative services necessary for the operation of MiaSolé’s business as a purchasing agent for transacting product and direct material sales between the customer and vendor base.

Pursuant to the Service Agreement, MiaSolé shall pay to MiaSolé Hi-Tech a monthly fixed fee of US\$67,500 from 1 January 2016 to 31 December 2018.

The details of the transactions were set out in the Company’s announcement dated 8 March 2016.

持續關連交易 (續)

(II) MiaSolé服務協議

於二零一六年三月七日，本公司全資附屬公司MiaSolé Hi-Tech Corp. (「MiaSolé Hi-Tech」) 與漢能控股之全資附屬公司MiaSolé訂立服務協議(「服務協議」)，據此，MiaSolé Hi-Tech同意向MiaSolé提供業務及商業管理、會計及財政、法律、購買／採購，以及MiaSolé作為採購代理，就處理產品及客戶與賣家間之材料銷售等營運所需之一般行政服務。

根據服務協議，MiaSolé由二零一六年一月一日至二零一八年十二月三十一日期間，須向MiaSolé Hi-Tech支付固定月費67,500美元。

該等交易之詳情載於本公司日期為二零一六年三月八日之公佈。

REPORT OF THE DIRECTORS

董事會報告

CONTINUING CONNECTED TRANSACTIONS

(continued)

The independent non-executive Directors of the Company had reviewed the above continuing connected transaction (I) – (II) and confirmed the transaction had been entered into:

- (1) in the ordinary and usual course of business of the Company;
- (2) either on normal commercial terms or, if there were not sufficient comparable transactions to judge whether they were on normal commercial terms, on terms no less favourable to the Company than terms available to or from (as appropriate) independent third parties; and
- (3) in accordance with the relevant agreement governing them on terms that were fair and reasonable and in the interests of the shareholders of the Company as a whole.

Ernst & Young, the Company's auditors, were engaged to report on the Group's continuing connected transactions in accordance with Hong Kong Standard on Assurance Engagements 3000 (Revised) *Assurance Engagements 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. Ernst & Young have issued their unqualified letter containing their findings and conclusions in respect of the continuing connected transactions disclosed above by the Group in accordance with Rule 14A.56 of the Listing Rules. A copy of the auditor's letter has been provided by the Company to the Hong Kong Stock Exchange.

持續關連交易 (續)

本公司之獨立非執行董事已審閱上述持續關連交易(I) – (II)並確認交易乃：

- (1) 於本公司正常及一般業務過程中訂立；
- (2) 按一般商業條款，或倘無足夠可資比較交易以評定是否按一般商業條款，則按對本公司而言不遜於其向獨立第三方提供，或自獨立第三方取得（按適當情況）之條款；及
- (3) 根據規管該等交易之相關協議，而該等協議之條款屬公平合理，且符合本公司股東之整體利益。

本公司核數師安永會計師事務所獲聘根據香港會計師公會頒佈之香港鑑證業務準則第3000號（已修訂）*審計或審閱歷史財務資料以外的鑑證工作*並參考實務說明第740號關於香港上市規則所述持續關連交易的核數師函件就本集團之持續關連交易作出報告。安永會計師事務所已根據上市規則第14A.56條發出無保留函件，載列其就本集團於上文所披露之持續關連交易所取得之結果及結論。本公司已向香港聯交所提供核數師函件之副本。

REPORT OF THE DIRECTORS

董事會報告

SHARE OPTION SCHEME

Principal terms of Share Option Scheme

Pursuant to the terms of the share option scheme adopted by the Company on 28 August 2007 (the “Share Option Scheme”), the Company may grant option to (i) any director, employee or consultant of the Group or a company in which the Group holds an equity interest or a subsidiary of such company (“Affiliate”); or (ii) any discretionary trust whose discretionary objects include any director, employee or consultant of the Group or an Affiliate; or (iii) a company beneficially owned by any director, employee or consultant of the Group or an Affiliate; or (iv) any customer, supplier or adviser whose service to the Group or business with the Group contributes or is expected to contribute to the business or operation of the Group as may be determined by the Directors from time to time to subscribe for the shares of the Company.

The Share Option Scheme is set up for the purpose of attracting and retaining quality personnel and other persons and providing incentive to them to contribute to the business and operation of the Group. To this end, the Directors may specify the minimum period, if any, for which an option must be held or the performance targets, if any, that must be achieved before the option can be exercised.

Share options may be granted without any initial payment for the share options at an exercise price (subject to adjustments as provided therein) equal to the highest of (i) the nominal value of the shares; (ii) the closing price per share as stated in the Stock Exchange’s daily quotations sheet on the date of the grant of the share option; and (iii) the average closing price per share as stated in the Stock Exchange’s daily quotations sheets for the five business days immediately preceding the date of the grant of the share option.

購股權計劃

購股權計劃之主要條款

根據本公司於二零零七年八月二十八日採納之購股權計劃(「購股權計劃」)之條款，本公司可授出購股權予(i)本集團或本集團持有股權之公司或其附屬公司(「聯屬公司」)之任何董事、僱員或諮詢人；或(ii)本集團或聯屬公司之任何董事、僱員或諮詢人為全權託管對象之任何全權信託；或(iii)本集團或聯屬公司之任何董事、僱員或諮詢人實益擁有之公司；或(iv)董事不時釐定向本集團提供之服務或與本集團之業務目前或預期將會對本集團之業務或營運有貢獻之任何客戶、供應商或顧問，以認購本公司股份。

購股權計劃之設立目的為吸引及挽留高質素之員工及其他人士，以及提供獎勵讓彼等為本集團業務及營運作出貢獻。為達此目的，董事或會指定購股權可獲行使前必須持有之最低限期(如有)或必須達致之表現目標(如有)。

購股權可毋須按行使價就該等購股權(可按本文規定而予以調整)作出初步付款而授出，行使價相等於下列三者中之最高者：(i)股份之面值；(ii)每股股份於授出購股權當日在聯交所每日報價表所報之收市價；及(iii)每股股份於緊接授出購股權當日之前五個營業日在聯交所每日報價表所報之平均收市價。



REPORT OF THE DIRECTORS

董事會報告

SHARE OPTION SCHEME *(continued)*

Principal terms of Share Option Scheme *(continued)*

The maximum number of shares which may be issued upon the exercise of all options to be granted under the Share Option Scheme and any other share option scheme(s) of the company shall not exceed 10% of the share capital of the Company in issue on 28 August 2007, the date of adoption of the Share Option Scheme, unless a refresh approval of the shareholders is obtained. At a special general meeting of the Company held on 11 June 2010, the shareholders of the Company have approved to refresh the 10% limit. As at the date of this report, the total number of shares available for issue upon the exercise of all options granted or to be granted under the Share Option Scheme is 461,224,947 (representing 10% of the issued share capital of the Company as at the date of passing the resolution to refresh the 10% limit).

The maximum number of the shares (issued and to be issued) in respect of which share options may be granted under the Share Option Scheme to any one grantee in any 12-month period shall not exceed 1% of the share capital of the Company in issue on the last date of such 12-month period unless approval of the shareholders of the Company has been obtained in accordance with the Listing Rules.

The Share Option Scheme was approved by the shareholders of the Company on 28 August 2007 and has expired on 27 August 2017. The exercise period of an option granted under the Share Option Scheme shall not be more than ten years from its date of grant and may include the minimum period, if any, for which such option must be held before it can be exercised.

購股權計劃 *(續)*

購股權計劃之主要條款 *(續)*

因行使根據購股權計劃及本公司任何其他購股權計劃將予授出之全部購股權而可能須予發行之股份最高數目不得超過於二零零七年八月二十八日(採納購股權計劃日期)本公司已發行股本之10%，惟取得股東之更新批准除外。於二零一零年六月十一日舉行之本公司股東特別大會上，本公司股東已批准更新10%限額。於本報告日期，因行使根據購股權計劃已授出或將予授出之全部購股權而可予發行之股份總數為461,224,947股(佔通過更新10%限額之決議案當日之本公司已發行股本之10%)。

根據購股權計劃可於任何12個月期間向任何一名承授人授出購股權之有關股份(已發行及將予發行)最高數目不得超過於有關12個月期間最後一日本公司已發行股本之1%，惟根據上市規則已取得本公司股東批准除外。

購股權計劃已於二零零七年八月二十八日獲本公司股東批准，於二零一七年八月二十七日屆滿。根據購股權計劃授出之購股權之行使期自授出日期起計不超過十年及可能包括有關購股權獲行使之前必須持有之最短期限(如有)。

REPORT OF THE DIRECTORS

董事會報告

SHARE OPTION SCHEME *(continued)*

Principal terms of Share Option Scheme *(continued)*

The exercisable period of the share options granted was determined by the directors of the Company each time when the options were granted. Holders of share options granted under the Share Option Scheme may only exercise their options during the exercisable periods as follows:

Date of grant	Exercisable period	Maximum percentage of exercisable share options
授出日期	行使期	可行使購股權之上限百分比
27/10/2014 二零一四年十月二十七日	27/10/2014-31/10/2015 二零一四年十月二十七日至二零一五年十月三十一日	10%
	1/11/2015-31/10/2016 二零一五年十一月一日至二零一六年十月三十一日	10%
	1/11/2016-31/10/2017 二零一六年十一月一日至二零一七年十月三十一日	10%
	1/11/2017-31/10/2018 二零一七年十一月一日至二零一八年十月三十一日	10%
	1/11/2018-31/10/2019 二零一八年十一月一日至二零一九年十月三十一日	60%
30/1/2015 二零一五年一月三十日	30/1/2015-29/1/2016 二零一五年一月三十日至二零一六年一月二十九日	10%
	30/1/2016-29/1/2017 二零一六年一月三十日至二零一七年一月二十九日	10%
	30/1/2017-29/1/2018 二零一七年一月三十日至二零一八年一月二十九日	10%
	30/1/2018-29/1/2019 二零一八年一月三十日至二零一九年一月二十九日	10%
	30/1/2019-29/1/2020 二零一九年一月三十日至二零二零年一月二十九日	60%
16/4/2015 二零一五年四月十六日	16/4/2015-15/4/2016 二零一五年四月十六日至二零一六年四月十五日	10%
	16/4/2016-15/4/2017 二零一六年四月十六日至二零一七年四月十五日	10%
	16/4/2017-15/4/2018 二零一七年四月十六日至二零一八年四月十五日	10%
	16/4/2018-15/4/2019 二零一八年四月十六日至二零一九年四月十五日	10%
	16/4/2019-15/4/2020 二零一九年四月十六日至二零二零年四月十五日	60%

購股權計劃(續)

購股權計劃之主要條款(續)

所授出購股權的行使期由本公司董事在每次授出購股權時決定。根據購股權計劃獲授出購股權的持有人只可在下列行使期內行使其購股權：

REPORT OF THE DIRECTORS

董事會報告

SHARE OPTION SCHEME (continued)

Movements of share options

Details of the movements in the share options granted under the Share Option Scheme during the year are as follows:

購股權計劃(續)

購股權變動

年內根據購股權計劃授出購股權之變動詳情如下：

Eligible persons	Date of grant	Exercise		Movement of share options during the year 年內購股權之變動		
		price	Exercise period	Outstanding as at 1/1/2018 於二零一八年 一月一日 尚未行使	Lapsed	Outstanding as at 31/12/2018 於二零一八年 十二月三十一日 尚未行使
Director 董事						
Dr. Lam Yat Ming Eddie 林一鳴博士	27/10/2014 二零一四年十月二十七日	1.716	27/10/2014-31/10/2019 二零一四年十月二十七日至二零一九年十月三十一日	1,400,000	(200,000)	1,200,000
Other employees 其他僱員	27/10/2014 二零一四年十月二十七日	1.716	27/10/2014-31/10/2019 二零一四年十月二十七日至二零一九年十月三十一日	21,560,000	(3,800,000)	17,760,000
	30/1/2015 二零一五年一月三十日	3.61	30/1/2015-29/1/2020 二零一五年一月三十日至二零二零年一月二十九日	11,360,000	(4,220,000)	7,140,000
	16/4/2015 二零一五年四月十六日	6.91	16/4/2015-15/4/2020 二零一五年四月十六日至二零二零年四月十五日	12,240,000	(4,960,000)	7,280,000
				46,560,000	(13,180,000)	33,380,000

REPORT OF THE DIRECTORS

董事會報告

RESERVES

Movements in the reserves of the Group during the year are set out in the consolidated statement of changes in equity of the consolidated financial statements set out on pages 130 and 131.

In the opinion of the Directors, the Company's reserves available for distribution to shareholders at 31 December 2018 were as below:

儲備

本集團之儲備於年內之變動情況載於第130頁及第131頁綜合財務報表中綜合權益變動表內。

董事認為，本公司於二零一八年十二月三十一日可供分派予股東之儲備如下：

	2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Contributed surplus	實繳盈餘 33,132	33,132

The contributed surplus of the Company represents the excess of the carrying value of the subsidiaries acquired over the nominal value of the Company's shares issued in prior years and reorganisation during the year ended 31 December 2009 which, under the Companies Act 1981 of Bermuda (as amended), is available for distribution to the shareholders of the Company. However, the Company cannot declare or pay a dividend, or make a distribution out of contributed surplus if:

- (i) it is, or would after the payment be, unable to pay its liabilities as they become due; or
- (ii) the realisable value of its assets would thereby be less than the aggregate of its liabilities and its issued share capital and share premium account.

本公司之實繳盈餘指被收購附屬公司之賬面值超出本公司於過往年度已發行股份之面值之差額及截至二零零九年十二月三十一日止年度內之資本重組，並可根據一九八一年百慕達公司法（經修訂）分派予本公司股東。然而，倘出現以下情況，則本公司不得宣佈或派發股息或自實繳盈餘分派：

- (i) 派發後，本公司不能償還到期之負債；或
- (ii) 其資產之可變現價值因而少於其負債及其已發行股本及股份溢價賬之總數。



REPORT OF THE DIRECTORS

董事會報告

PRE-EMPTIVE RIGHTS

There is no provision for pre-emptive rights under the Company's bye-laws ("Bye-laws") although there is no statutory restriction against such rights under the laws in Bermuda.

PROPERTY, PLANT AND EQUIPMENT

Details of movements in the property, plant and equipment of the Group during the year are set out in note 13 to the consolidated financial statements.

BORROWINGS AND INTEREST CAPITALISED

Details of the borrowings of the Group outstanding at 31 December 2018 is set out in note 26 to the consolidated financial statements. There is no capitalised interest in 2018.

PRINCIPAL SUBSIDIARIES

Details of the Company's principal subsidiaries at 31 December 2018 are set out in note 1 to the consolidated financial statements.

FINANCIAL SUMMARY

A five year financial summary is shown on pages 319 and 320.

優先購買權

儘管百慕達法例對優先購買權並無法定限制，本公司之公司細則（「公司細則」）並無有關此等權利之規定。

物業、廠房及設備

本集團之物業、廠房及設備於年內之變動詳情載於綜合財務報表附註13。

借款及資本化利息

於二零一八年十二月三十一日，本集團結欠借款之詳情載於綜合財務報表附註26。於二零一八年並無資本化利息。

主要附屬公司

於二零一八年十二月三十一日，本公司主要附屬公司之詳情載於綜合財務報表附註1。

財務概要

五年財務概要載於第319頁及第320頁。

REPORT OF THE DIRECTORS

董事會報告

DIRECTORS

The Directors during the year and up to the date of this report were:

EXECUTIVE DIRECTORS

Mr. Yuan Yabin (*Chairman*)
Dr. Lam Yat Ming Eddie (*Vice Chairman*)
Mr. Si Haijian (*Chief Executive Officer*)
Mr. Huang Songchun (*Financial Controller*)
Mr. Xu Xiaohua
Mr. Zhang Bin
Mr. Wang Xiong (*Vice Chairman*)
(*Resigned on 15 March 2018*)

Mr. Lo Man Tuen, *G.B.S., JP*
Professor He Xiaofeng
Professor Zhang Qiusheng
Mr. Wang Dan

In accordance with the bye-law 87(1) of the Company's Bye-Laws, Mr. Yuan Yabin, Dr. Lam Yat Ming Eddie, Mr. Si Haijian and Mr. Huang Songchun will retire from office at the AGM and, being eligible, will offer themselves for re-election.

No Director proposed for re-election at the forthcoming annual general meeting has a service contract with the Company or any of its subsidiaries which is not determinable by the employing company within one year without the payment of compensation (other than statutory compensation).

董事

年內及直至本報告日期之董事如下：

執行董事

袁亞彬先生 (*主席*)
林一鳴博士 (*副主席*)
司海健先生 (*首席執行官*)
黃松春先生 (*財務總監*)
徐曉華先生
張彬先生
王雄先生 (*副主席*)
(*於二零一八年三月十五日辭任*)

盧文端先生, *G.B.S., 太平紳士*
何小鋒教授
張秋生教授
王丹先生

根據本公司之公司細則第87(1)條，袁亞彬先生、林一鳴博士、司海健先生和黃松春先生將於股東週年大會上退任，惟合資格並願意膺選連任。

獲提名在應屆股東週年大會上重選之董事概無與本公司或其任何附屬公司訂立僱用公司不可在一年內不予賠償（法定賠償除外）而終止之服務合同。

REPORT OF THE DIRECTORS

董事會報告

DIRECTORS' INTEREST IN SHARES

As at 31 December 2018, the directors or the chief executive of the Company had interest or short position in the shares, underlying shares or debentures of the Company or its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance (the "SFO")) as recorded in the register required to be kept by the Company pursuant to section 352 of the SFO or as otherwise notified to the Company and The Stock Exchange of Hong Kong Limited (the "Stock Exchange") pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers (the "Model Code") as set out in Appendix 10 of the Rules Governing the Listing of Securities on the Stock Exchange (the "Listing Rules") as follows:

董事之股份權益

於二零一八年十二月三十一日，本公司董事或主要行政人員在本公司或其相聯法團（定義見證券及期貨條例（「證券及期貨條例」）第XV部）之股份、相關股份或債券中擁有任何記錄於本公司根據證券及期貨條例第352條須存置之登記冊之權益或淡倉，或根據香港聯合交易所有限公司證券上市規則（「上市規則」）附錄十所載之上市發行人董事進行證券交易的標準守則（「標準守則」）須知會本公司及香港聯合交易所有限公司（「聯交所」）之權益或淡倉載列如下：

Name of Director	Capacity held	Number of shares	Number of underlying shares under derivatives equity/share options 衍生工具權益 項下之相關股份/ 購股權數目	Total interests	Percentage of issued share capital (%) 佔已發行股本百分比 (%)
董事姓名	持有身份	股份數目	購股權數目	合共權益	(%)
Mr. YUAN Yabin 袁亞彬先生	Beneficial owner 實益擁有人	20,220,000 (L)	—	20,220,000 (L)	0.048
Dr. LAM Yat Ming Eddie 林一鳴博士	Beneficial owner 實益擁有人	—	1,200,000 (L)	1,200,000 (L)	0.003
Mr. HUANG Songchun 黃松春先生	Beneficial owner 實益擁有人	1,248,500 (L)	—	1,248,500 (L)	0.003
	Interest of spouse 配偶權益	1,657,500 (L)	—	2,906,000 (L)	0.007
Mr. XU Xiaohua 徐曉華先生	Beneficial owner 實益擁有人	6,000,000 (L)	—	6,000,000 (L)	0.014

L Long positions 好倉

REPORT OF THE DIRECTORS

董事會報告

DIRECTORS' INTEREST IN SHARES *(continued)*

Save as disclosed above, as at 31 December 2018, none of the Directors and the chief executive of the Company had registered an interest or short position in the shares, underlying shares or debentures of the Company or its associated corporations that was required to be recorded pursuant to section 352 of the SFO, or as otherwise notified to the Company and the Stock Exchange pursuant to the Model Code.

DIRECTORS' INTERESTS IN CONTRACTS OF SIGNIFICANCE

Save as disclosed under the section headed "Continuing Connected Transactions" in the report of the Directors and note 34 to the consolidated financial statements, no contracts of significance to which the Company or any of its subsidiaries was a party and in which a Director had a material interest, whether directly or indirectly, subsisted at the end of the year or at any time during the year.

ARRANGEMENTS TO ACQUIRE SHARES OR DEBENTURES

Save as disclosed in the section headed Share Option Scheme above, at no time during the year was the Company or any of its subsidiaries, a party to any arrangements to enable the Directors to acquire benefits by means of the acquisition of shares in, or debentures of, the Company or any other body corporate.

MANAGEMENT AND SERVICE CONTRACTS

No contracts of significance concerning the management or administration of the whole or any substantial part of any business of the Company were entered into or existed during the year.

董事之股份權益(續)

除上文所披露者外，於二零一八年十二月三十一日，本公司之董事及主要行政人員概無於本公司或其相聯法團之股份、相關股份或債券中登記擁有任何須記錄於本公司根據證券及期貨條例第352條須存置之登記冊之權益或淡倉，或根據標準守則須知會本公司及聯交所之權益或淡倉。

董事於重大合同之權益

除董事會報告「持續關連交易」及綜合報表附註34披露外，於年結日或年內任何時間，本公司或其任何附屬公司概無訂立董事在當中直接或間接地擁有重大權益之重要合同。

購買股份或債券之安排

除上文購股權計劃一節所披露者外，於年內任何時間，本公司或其任何附屬公司並無訂立任何安排，致使董事可因購買本公司或任何其他法人團體之股份或債券而獲取利益。

管理及服務合同

年內並無訂立或存在任何有關本公司全部或任何主要部分業務之重大管理或行政合同。

REPORT OF THE DIRECTORS

董事會報告

RETIREMENT SCHEMES

Details of the Group's retirement scheme are shown in note 2.4 to the consolidated financial statements.

The Group's retirement scheme contributions charged to the consolidated statement of profit or loss and other comprehensive income for the year amounted to approximately HK\$127,692,000 (2017: HK\$43,254,000).

SUBSTANTIAL SHAREHOLDERS

As at 31 December 2018, the register of substantial shareholders maintained by the Company pursuant to Section 336 of the SFO shows that other than the interests disclosed above in respect of certain directors and chief executives of the Company, the following shareholders had notified the Company of relevant interests in the issued share capital of the Company.

退休計劃

本集團之退休計劃詳情載於綜合財務報表附註2.4。

本年度，在綜合損益及其他全面收益表扣除之本集團退休計劃之供款約為127,692,000港元（二零一七年：43,254,000港元）。

主要股東

於二零一八年十二月三十一日，本公司根據證券及期貨條例第336條存置之主要股東名冊顯示，除上文所披露有關若干董事及本公司主要行政人員之權益外，下列股東已通知本公司所持本公司已發行股本之相關權益。

Name of shareholder	Capacity	Interests in Shares	Percentage of issued share capital (%) 佔已發行股本百分比 (%)
股東名稱	權益性質	股份權益	
Mr. Li He Jun 李河君先生	Interest of controlled corporation 所控制法團之權益	20,807,772,921 (L)	49.37
		3,122,000,000 (S)	7.41
Mr. Li Weijun 李偉均先生	Beneficial owner & Interest of controlled corporation 實益擁有人及所控制法團之權益	10,321,493,276 (L) (Note 1) (附註1)	24.49
北京華勤高科貿易有限公司	Interest of controlled corporation 所控制法團之權益	10,341,329,376 (L) (Note 1) (附註1)	24.53
北京建煌電力投資有限公司	Interest of controlled corporation 所控制法團之權益	10,341,329,376 (L) (Note 1) (附註1)	24.53
Hanergy Hydroelectric Power Group Limited* 漢能水力發電集團有限公司	Beneficial owner & Interest of controlled corporation 實益擁有人及所控制法團之權益	10,341,329,376 (L) (Note 1) (附註1)	24.53

* Formerly known as Hanergy Holding Group Limited
前稱漢能控股集團有限公司

REPORT OF THE DIRECTORS

董事會報告

SUBSTANTIAL SHAREHOLDERS (continued)

主要股東(續)

Name of shareholder	Capacity	Interests in Shares	Percentage of issued share capital (%) 佔已發行股本百分比 (%)
股東名稱	權益性質	股份權益	
廣東東江電力開發有限公司	Interest of controlled corporation 所控制法團之權益	10,341,329,376 (L) (Note 1) (附註1)	24.53
漢能移動能源控股有限公司	Interest of controlled corporation 所控制法團之權益	20,107,772,921 (L) 2,822,000,000 (S)	47.71 6.70
Hanergy Investment Limited	Beneficial owner & Interest of controlled corporation 實益擁有人及所控制法團之權益	19,805,088,921 (L) 2,822,000,000 (S)	46.99 6.70
Hanergy Option Limited	Beneficial owner 實益擁有人	2,966,785,603 (L)	7.04
GL Wind Farm Investment Limited	Beneficial owner 實益擁有人	1,973,684,104 (L) 400,000,000 (S)	4.68 0.95

L Long positions 好倉

S Short positions 淡倉

Note:

- These shares comprise the Second Tranche of 1,473,458,688 Subscription Shares at the Subscription Price of HK\$0.12 per Subscription Share and the Third Tranche of 1,473,458,688 Subscription Shares at the Subscription Price of HK\$0.10 per Subscription Share will be issued and allotted pursuant to Subscription Agreement dated 20 May 2010 and the subsequent Supplementary Agreement.

附註：

- 該等相關股份包括根據二零一零年五月二十日訂立之認購協議及其後之補充協議予以發行及配發之第二批合共1,473,458,688股認購股份，每股認購股份0.12港元及第三批合共1,473,458,688股認購股份，每股認購股份0.10港元。



REPORT OF THE DIRECTORS

董事會報告

SUBSTANTIAL SHAREHOLDERS *(continued)*

Save as disclosed above, the Company had not been notified any interests or short positions in the shares or underlying shares of the Company as recorded in the register required to be kept under section 336 of the SFO as at 31 December 2018.

CORPORATE GOVERNANCE

A report on the corporate governance practices of the Company is set out on pages 93 to 107 of this report.

SUFFICIENCY OF PUBLIC FLOAT

Based on the information that is publicly available to the Company and within the knowledge of its Directors, the Company has maintained sufficient public float as required under the Listing Rules as at the date of this report.

CHANGE OF PRINCIPAL PLACE OF BUSINESS IN HONG KONG

The Company's principal place of business in Hong Kong has been relocated to Room 2204-06, 22/F, World Trade Centre, 280 Gloucester Road, Causeway Bay, Hong Kong with effect from 13 August 2018.

AUDITORS

Ernst & Young was appointed by the Directors to conduct audit on the consolidated financial statements of the Company for the year ended 31 December 2018. A resolution will be proposed at the forthcoming annual general meeting to reappoint Ernst & Young as the auditors of the Company.

On behalf of the Board

Yuan Yabin
Chairman

Beijing, the PRC, 29 March 2019

主要股東 *(續)*

除上文所披露者外，於二零一八年十二月三十一日，本公司並無接獲通知任何本公司股份或相關股份之權益或淡倉須列入根據證券及期貨條例第336章須存置之登記冊。

企業管治

有關本公司企業管治常規之報告載於本報告第93頁至第107頁。

公眾持股量充足度

根據本公司所得之公開資料並就董事所知，於本報告日期，本公司已維持上市規則所規定之充足公眾持股量。

更改香港主要營業地點

本公司於香港之主要營業地點已遷至香港銅鑼灣告士打道280號世貿中心22樓2204-06室，由二零一八年八月十三日起生效。

核數師

安永會計師事務所獲董事委任審核本公司截至二零一八年十二月三十一日止年度之綜合財務報表。於應屆股東週年大會上將提呈一項決議案以續聘安永會計師事務所為本公司核數師。

代表董事會

袁亞彬
主席

中國北京，二零一九年三月二十九日

CORPORATE GOVERNANCE REPORT

企業管治報告



CORPORATE GOVERNANCE PRACTICES

The Board is dedicated to provide effective and responsible leadership for the Company. The Directors, individually and collectively, must act in good faith in the best interests of the Company and its shareholders.

The Board has established the following committees to oversee different areas of the Company's affairs. The composition of the Board and the committees are given below and their respective responsibilities are discussed later in this report. The terms of references of these committees adopted by the Board are published on the Company's website (www.hanergythinfilmpower.com).

As at 31 December 2018, the members of the Board and the committees are as follows:

企業管治常規

董事會負責為本公司提供有效及負責任之領導。董事必須個別及共同秉誠行事，以本公司及其股東之最佳利益為依歸。

董事會已成立以下委員會監管本公司不同範疇之事務。董事會及各委員會之成員載於下文，而其各自之職責將於本報告下文論述。該等委員會之職權範圍已獲董事會採納，並登載於本公司網站(www.hanergythinfilmpower.com)。

於二零一八年十二月三十一日，董事會及各委員會之成員如下：

		Audit Committee 審核委員會	Remuneration Committee 薪酬委員會	Nomination Committee 提名委員會
Board	董事會			
Executive Directors	執行董事			
Mr. Yuan Yabin (<i>Chairman</i>)	袁亞彬先生 (<i>主席</i>)			
Dr. Lam Yat Ming Eddie (<i>Vice Chairman</i>)	林一鳴博士 (<i>副主席</i>)			
Mr. Si Haijian (<i>Chief Executive Officer</i>)	司海健先生 (<i>首席執行官</i>)			
Mr. Huang Songchun (<i>Financial Controller</i>)	黃松春先生 (<i>財務總監</i>)			
Mr. Xu Xiaohua	徐曉華先生			
Mr. Zhang Bin	張彬先生			
Independent non-executive Directors	獨立非執行董事			
Mr. Lo Man Tuen, <i>G.B.S., JP</i>	盧文端先生, <i>G.B.S., 太平紳士</i>	✓	✓	✓*
Professor He Xiaofeng	何小鋒教授	✓	✓*	✓
Professor Zhang Qiusheng	張秋生教授	✓*	✓	✓
Mr. Wang Dan	王丹先生	✓	✓	✓

* Chairperson of the committee 委員會主席



CORPORATE GOVERNANCE REPORT

企業管治報告

CORPORATE GOVERNANCE PRACTICES

(continued)

The Board sets the Group's objectives and strategies and monitors its performance. The Board also decides on matters such as annual and interim results, major transactions, director appointments, dividend and accounting policies. The Board has delegated the authority and responsibility of managing and overseeing the Group's day to day operations to the Chief Executive Officer and Executive Directors of the Company and respective directors of principal subsidiaries of the Group.

Mr. Yuan Yabin is the Chairman of the Board and Mr. Si Haijian is the Chief Executive Officer of the Company. There are clear divisions among their responsibilities with a view to achieving a balance of power and authority. The Chairman provides leadership to the Board in terms of formulating policies and strategies. The Chief Executive Officer of the Company has the overall responsibility of implementing the decisions, policies and strategies approved by the Board, and overseeing the Group's business and operations.

The Company had received annual confirmation from each of the independent non-executive directors as regards their independence to the Company and based on the contents of such confirmations, considers that each of the independent non-executive Directors is independent to the Company.

The company secretary of the Company assists the Chairman in setting the agenda of board meetings and each Director is invited to present any businesses that they wish to discuss or propose at the meetings. All Directors have timely access to all relevant information of the meetings and may take professional advice if necessary.

企業管治常規(續)

董事會設定本集團之目標及戰略，並監管其表現。董事會亦會對有關年度及中期業績、主要交易、董事委任，以及股息及會計政策作出決定。董事會已將管理及監督本集團日常營運之權力以及責任授權予本公司首席執行官及執行董事及本集團主要附屬公司各自之董事。

袁亞彬先生為董事會主席，而司海健先生則為本公司之首席執行官。彼等之職責有清晰劃分，以達至權力及權限方面之平衡。主席負責領導董事會制定政策及戰略。本公司首席執行官全面負責制定獲董事會批准的決策、政策及戰略，以及監督本集團業務及營運。

本公司已接獲各獨立非執行董事就其於本公司之獨立性作出之年度確認，並根據有關確認之內容認為各獨立非執行董事均獨立於本公司。

本公司之公司秘書協助主席擬備董事會會議之會議議程，而各董事均會獲邀提出任何彼等擬於會上討論或提呈之事項。全體董事均可迅速取得所有會議之相關資料，亦可於需要時尋求專業意見。

CORPORATE GOVERNANCE REPORT

企業管治報告



THE BOARD

During the year ended 31 December 2018, Board meeting and general meeting were held with details of the Directors' attendance set out below:

董事會

截至二零一八年十二月三十一日止年度曾舉行董事會會議及股東大會，董事出席詳情如下：

Directors	董事	Attendance/No. of meetings 出席次數／會議次數	
		Board meeting 董事會會議	General meeting 股東大會
Executive Directors		執行董事	
Mr. Yuan Yabin	袁亞彬先生	7/7	1/1
Dr. Lam Yat Ming Eddie	林一鳴博士	7/7	1/1
Mr. Si Haijian	司海健先生	7/7	1/1
Mr. Huang Songchun	黃松春先生	7/7	1/1
Mr. Xu Xiaohua	徐曉華先生	7/7	1/1
Mr. Zhang Bin	張彬先生	7/7	1/1
Mr. Wang Xiong (Resigned on 15 March 2018)	王雄先生 (於二零一八年三月十五日 辭任)	N/A不適用	N/A不適用
Independent non-executive Directors		獨立非執行董事	
Mr. Lo Man Tuen, G.B.S., JP	盧文端先生, G.B.S., 太平紳士	7/7	1/1
Professor He Xiaofeng	何小鋒教授	7/7	1/1
Professor Zhang Qiusheng	張秋生教授	7/7	1/1
Mr. Wang Dan	王丹先生	7/7	1/1



CORPORATE GOVERNANCE REPORT

企業管治報告

THE BOARD *(continued)*

Under the Bye-laws, all Directors are currently required to offer themselves for re-election by rotation at least once every three years. All Directors appointed to fill a casual vacancy should be subject to election at the first general meeting after their appointment.

Under the Bye-laws, one-third of the Directors shall retire from office by rotation at each annual general meeting. According to the Listing Rules, every director, including those appointed for a specific term, should be subject to retirement by rotation at least once every three years.

The Directors will continuously review and improve the corporate governance practices and standards of the Company to ensure that business activities and decision making process are regulated in a proper and prudent manner.

During the year, the Chairman had at least annually held meetings with all independent non-executive directors without the executive directors present.

At the annual general meeting of the Company held on 15 June 2018, the chairman of the Board and the members of all board committees, together with the external auditor of the Company were present to be available to answer any question to ensure effective communication with shareholders of the Company.

Every newly appointed director of the Company had received a comprehensive, formal and tailored induction on appointment. Subsequently any briefing or continuous professional development will be provided to ensure that Director has a proper understanding of the Company's operations and business and is fully aware of his responsibilities under statute and common law, the Listing Rules, legal and other regulatory requirements and the Company's business and governance policies.

董事會 *(續)*

根據公司細則，全體董事現時須最少每三年輪流接受一次重選。所有為填補臨時空缺而獲委任之董事須在接受委任後首次股東大會上進行選舉。

根據公司細則，每次股東週年大會應有三分之一董事輪值告退。根據上市規則，每名董事(包括有指定任期的董事)應輪席告退，至少每三年一次。

董事將持續檢討及改進本公司之企業管治常規及準則，以確保商業活動及決策程序受到妥善審慎規管。

年內，主席最少每年與全體獨立非執行董事舉行一次執行董事不得出席之會議。

於二零一八年六月十五日舉行之本公司股東週年大會上，董事會主席、所有董事委員會成員及本公司之外聘核數師均有出席，以回應任何提問，確保與本公司股東之間的有效溝通。

各新委任之本公司董事均獲得全面、正式兼特別設計之入職培訓。隨後將獲提供簡報或持續專業發展，以確保董事了解本公司之營運及業務，並明瞭其根據國家法律及普通法、聯交所上市規則、法律及其他監管規定以及本公司之業務及管治政策之責任。

CORPORATE GOVERNANCE REPORT

企業管治報告



THE BOARD *(continued)*

The Directors are encouraged to participate in continuous professional development to develop and refresh their knowledge and skills. During the year, in-house seminar was conducted covering the topics on insider dealing, false trading, price rigging, disclosure of information about prohibited transactions, disclosure of false or misleading information inducing transactions, and stock market manipulation. Directors participated in the following trainings:

董事會 *(續)*

本公司鼓勵董事參與持續專業發展學習以增進及更新知識及技能。年內曾進行內部研討會，內容涵蓋內幕交易、虛假交易、操控價格、披露關於受禁之交易資料、披露虛假或具誤導性之資料以誘使進行交易，以及證券市場操縱。董事曾參與下列培訓：

Directors	董事	Types of Trainings	培訓類型
Executive Directors	執行董事		
Mr. Yuan Yabin	袁亞彬先生		S, R
Dr. Lam Yat Ming Eddie	林一鳴博士		S, R
Mr. Si Haijian	司海健先生		S, R
Mr. Huang Songchun	黃松春先生		S, R
Mr. Xu Xiaohua	徐曉華先生		S, R
Mr. Zhang Bin	張彬先生		S, R
Independent non-executive Directors	獨立非執行董事		
Mr. Lo Man Tuen	盧文端先生		S, R
Professor He Xiaofeng	何小鋒教授		S, R
Professor Zhang Qiusheng	張秋生教授		S, R
Mr. Wang Dan	王丹先生		S, R
S: Attending seminars and/or conferences and/or forums relating to directors' duties		S: 出席與董事職務有關的研討會及／或會議及／或論壇	
R: Reading newspaper, journals and updates relating to the economy, general business or directors' duties, etc.		R: 閱讀有關經濟、一般業務或董事職務等報章、刊物及最新資料	

To the best of knowledge of the Company, there is no financial, business, family or other material or relevant relationships among members of the Board.

就本公司所知，董事會成員之間並無財務、業務、家庭或其他重大或相關關係。

Appropriate insurance to cover against liability of the Directors and officers of the Company was arranged and will be renewed annually.

本公司已為董事和高級職員投保有關法律責任的適當保險，並會每年續期。



CORPORATE GOVERNANCE REPORT

企業管治報告

AUDIT COMMITTEE

The audit committee of the Company was established to review the Group's financial reporting, risk management, internal controls and corporate governance issues and make relevant recommendations to the Board. As at 31 December 2018, the Audit Committee comprised four independent non-executive Directors. The chairman of the Audit Committee possesses appropriate professional qualifications, accounting or related financial management expertise as required under the Listing Rules. Please refer to biography section of Directors for further details of the committee members.

The Audit Committee may elect to ask the external auditors to attend its meetings. During the year, the Audit Committee has met with the external auditors with no executive Directors present.

審核委員會

本公司之審核委員會乃成立以審閱本集團之財務申報、風險管理、內部監控及企業管治事宜，並對董事會提出相關建議。於二零一八年十二月三十一日，審核委員會包括四名獨立非執行董事。審核委員會主席具備上市規則所規定之適當專業資格、會計或相關財務管理專業知識。有關委員會成員之進一步詳情請參閱董事履歷一節。

審核委員會可選擇要求外聘核數師出席其會議。於本年度，審核委員會已與外聘核數師舉行並無執行董事出席之會議。

No. of meetings attended 出席會議次數

Mr. Lo Man Tuen	盧文端先生	2/2
Professor He Xiaofeng	何小鋒教授	2/2
Professor Zhang Qiusheng	張秋生教授	2/2
Mr. Wang Dan	王丹先生	2/2

CORPORATE GOVERNANCE REPORT

企業管治報告

AUDITOR'S REMUNERATION

The services provided by Ernst & Young and other audit firms and the fees thereof for the year ended 31 December 2018 and 2017, respectively, were as follows:

Statutory Annual	法定年度	2018	2017
		二零一八年	二零一七年
Ernst & Young	安永會計師事務所		
– Agreed upon procedure	– 協定程序	4,594	3,460
– Annual audit and special audit	– 年度審核及特別審核	22,352	15,915
– Other service	– 其他服務	8,975	320
Other audit firms for the audit and other related service	其他會計師事務所之審核及其他有關服務	7,015	3,075
		42,936	22,770

核數師酬金

安永會計師事務所及其他會計師事務所於截至二零一八年及二零一七年十二月三十一日止年度分別提供之服務及其相關費用如下：

REMUNERATION COMMITTEE

The remuneration committee of the Company was established to review the remuneration of Directors and the Group's salary policy. A majority of members are independent non-executive Directors. To minimize any conflict of interest, any member who is interested in any given proposed motion is required to abstain from voting on such motion. During the year under review, the Remuneration Committee had reviewed the Group's policy and structure for all remuneration of Directors, and the remuneration of new Directors on appointment.

On 15 June 2018, each of the executive Directors entered into a service contract with the Company for a term of three years, subject to retirement by rotation and re-election in accordance with the bye-laws of the Company and the Listing Rules, with their existing directors' fees and remuneration.

薪酬委員會

本公司之薪酬委員會成立以審閱董事酬金及本集團薪酬政策。大部分成員為獨立非執行董事。為將利益衝突減至最低，任何成員如於所提出之任何動議中擁有權益，則須就該項動議放棄投票。於回顧年度，薪酬委員會已審閱本集團董事之所有薪酬政策及架構，以及新獲委任董事之薪酬。

於二零一八年六月十五日，各執行董事以現有董事袍金及酬金與本公司訂立為期三年之服務合同，須遵照本公司之公司細則及上市規則輪流退任，並可膺選連任。

CORPORATE GOVERNANCE REPORT

企業管治報告

REMUNERATION COMMITTEE (continued)

薪酬委員會(續)

No. of meetings attended
出席會議次數

Mr. Lo Man Tuen	盧文端先生	2/2
Professor He Xiaofeng	何小鋒教授	2/2
Professor Zhang Qiusheng	張秋生教授	2/2
Mr. Wang Dan	王丹先生	2/2

With reference to the respective duties and responsibilities of Directors in the Group as well as the prevailing market condition, the monthly remuneration (including salary and director's fee) of the following Directors were adjusted as follows:

經參考董事各自於本集團之職務及職責以及當前市況後，以下董事之每月酬金(包括薪金及董事袍金)乃調整如下：

Name of Directors 董事姓名	Monthly remuneration (Including salary and director's fee) 每月酬金(包括薪金及董事袍金) (HK\$) (港元)	Effective Date 生效日期
Mr. Lo Man Tuen 盧文端先生	50,000	1 April 2018 二零一八年四月一日
Professor He Xiaofeng 何小鋒教授	50,000	1 April 2018 二零一八年四月一日
Professor Zhang Qiusheng 張秋生教授	50,000	1 April 2018 二零一八年四月一日
Mr. Wang Dan 王丹先生	50,000	1 April 2018 二零一八年四月一日
Mr. Yuan Yabin 袁亞彬先生	374,518	1 May 2018 二零一八年五月一日

CORPORATE GOVERNANCE REPORT

企業管治報告

NOMINATION COMMITTEE

The nomination committee of the Company was established with specific written terms of reference to review the structure, size and composition of the Board at least annually, to make recommendations on the procedures and criteria for appointment of Directors and to implement those that are adopted by the Board. All members are independent non-executive Directors.

The Company has a Board Diversity Policy to enhance the quality of its performance. 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.

提名委員會

本公司已成立提名委員會並以書面訂明其職權範圍，最少每年審核一次董事會之架構、規模及組成，以就委任董事之程序及準則提出建議及將董事會所採納者落實。全體成員均為獨立非執行董事。

本公司已採納董事會成員多元化政策以提升工作質量。為實現持續平衡發展，本公司認為董事會成員多元化是達致戰略目標及可持續發展的關鍵。本公司選任董事會成員時，從多方面考慮董事會成員多元化，包括但不限於性別、年齡、文化及教育背景、種族、專業經驗、技能、知識和服務年期。董事會所有委任均以用人唯才為原則，充分顧及董事會成員多元化的裨益參照各種標準選用人才。

No. of meetings attended 出席會議次數

Mr. Lo Man Tuen	盧文端先生	1/1
Professor He Xiaofeng	何小鋒教授	1/1
Professor Zhang Qiusheng	張秋生教授	1/1
Mr. Wang Dan	王丹先生	1/1

During the year under review, the Nomination Committee had reviewed the structure of the Board and the re-election of Directors at the annual general meeting of the Company.

於回顧年度內，提名委員會已審閱董事會架構及本公司股東週年大會重選董事等事宜。

CORPORATE GOVERNANCE REPORT

企業管治報告

CORPORATE GOVERNANCE FUNCTIONS

The Board is responsible for performing the corporate governance duties with its written terms of reference as set out below:

- (a) to develop and review the Company's policies and practices on corporate governance and make recommendations to the board;
- (b) to review and monitor the training and continuous professional development of directors and senior management;
- (c) to review and monitor the Company's policies and practices on compliance with legal and regulatory requirements;
- (d) to review the Company's compliance with the code and disclosure in the Corporate Governance Report.

No corporate governance committee has been established and the corporate governance report has been reviewed by the Board in discharge of its corporate governance function.

ACCOUNTABILITY AND AUDIT

Financial Reporting

The annual and interim results announcement of the Company are published in a timely manner and within three months and two months respectively of the year end and interim periods.

The responsibility of Directors in relation to the financial statements is set out below. It should be read in conjunction with, but distinguished from, the Independent Auditor's Report on pages 113 to 125 which acknowledges the reporting responsibility of the Group's Auditor.

企業管治職能

董事會負責履行企業管治職責，其書面職權範圍載列如下：

- (a) 制定及檢討本公司在企業管治方面之政策及常規並向董事會提出建議；
- (b) 檢討及監察董事及高級管理人員之培訓及持續專業發展；
- (c) 檢討及監察本公司在遵守法律及監管規定方面之政策及常規；
- (d) 檢討本公司遵守該準則之情況及於企業管治報告內之披露。

董事會並無成立企業管治委員會而本企業管治報告已由董事會審閱，以履行其企業管治職能。

問責性與審核

財務申報

本公司年度及中期業績公佈分別於年結日及中期期間結束後各自於三個月及兩個月時限內適時刊發。

董事就財務報表所承擔之責任載列如下。下文與第113頁至第125頁所載獨立核數師報告內本集團核數師確認其報告責任有所不同，但兩者應一併閱讀。

CORPORATE GOVERNANCE REPORT

企業管治報告

ACCOUNTABILITY AND AUDIT *(continued)*

Annual Report and Accounts

The Directors acknowledge their responsibility for the preparation of the annual report and financial statements of the Company to ensure that these financial statements give a true and fair presentation in accordance with the disclosure requirements of the Hong Kong Companies Ordinance and the applicable accounting standards.

Accounting Policies

The Directors consider that in preparing the financial statements, the Group has applied appropriate accounting policies that are consistently adopted and made judgements and estimates that are reasonable and prudent in accordance with the applicable accounting standards.

Accounting Records

The Directors are responsible for ensuring that the Group keeps accounting records which disclose the financial position of the Group upon which financial statements of the Group could be prepared in accordance with the Group's accounting policies while monthly updates giving a balanced and understandable assessment of the Company's performance, position and prospects in sufficient detail had been provided to all Directors.

Safeguarding Assets

The Directors are responsible for taking all reasonable and necessary steps to safeguard the assets of the Group and to prevent and detect fraud and other irregularities within the Group.

Going Concern

The Directors, after due and careful enquiries and by performing the necessary due diligence work to assess the credibility and the capacity of the Hanergy Affiliates, are of the view that the Group has adequate resources to continue in operational existence for the foreseeable future and that, for this reason, it is appropriate for the Group to adopt the going concern basis in preparing the financial statements.

問責性與審核 *(續)*

年報及賬目

董事確認其有責任編製本公司之年報及財務報表，以確保此等財務報表能根據香港公司條例的披露規定及適用會計準則，真實而公平地呈列資料。

會計政策

董事認為，本集團在編製財務報表時已應用一貫採納之適當會計政策，並根據適用之會計準則作出合理及審慎之判斷及估計。

會計記錄

董事負責確保本集團保存可披露本集團財政狀況之會計記錄，而藉此等記錄，本集團得以按照本集團之會計政策編製財務報表。全體董事每月均獲提供本公司表現、狀況及前景之平衡及可理解的詳細評估。

保護資產

董事負責採取一切合理及必要之措施保護本集團資產，並防範及查察本集團內之詐騙行為及其他違規事項。

持續經營

經謹慎查詢及藉進行必須盡職審查工作評估漢能聯屬公司之信譽及能力後，董事認為本集團擁有足夠資源在可見未來繼續營運，因此本集團適宜採納持續經營基準編製財務報表。



CORPORATE GOVERNANCE REPORT

企業管治報告

RISK MANAGEMENT AND INTERNAL CONTROL

The Board has an overall responsibility for maintaining a sound and effective risk management and internal control system (the “System”) of the Group. The System is designed not only to achieve the Group’s objectives with facilitating an effective and efficient business operation to ensure a reliable financial reporting and compliance with applicable rules and regulations, but also to provide reasonable, but not absolute, assurance on preventing material misstatement or loss as well as managing and minimizing risks of failure in operational system. The risk management process includes risk identification, risk evaluation, risk management measures and risk control and review.

The Group’s business, financial conditions and results may be affected by risk and uncertainties pertaining to the Group’s business. Certain significant risks have been identified through the process of risk identification and assessment.

The Board should at least annually conduct a review on the effectiveness of the System including all relevant financial, operational and compliance controls and risk management functions.

The Directors, through the Audit Committee and the internal audit department, have continued to review the effectiveness of the System. The System is designed to manage rather than eliminate the risk of failure to achieve business objectives and can only provide reasonable and not absolute assurance against material misstatement or loss. Controls are monitored by management review and by a programme of internal audits.

風險管理及內部監控

董事會就維持本集團穩健而有效之風險管理及內部監控系統(「系統」)負全責。系統旨在透過促進有效及高效之業務運作，確保可靠之財務報告及確保遵守各項適用規則法規以達致本集團之目標，同時亦旨在提供合理但非絕對保證，以防範重大失實陳述或損失，以及理順及減低營運系統失靈之風險。風險管理程序包括風險識別、風險評估、風險管理措施以及風險控制及審查。

本集團之業務、財務狀況及業績可能受與本集團業務有關之風險及不明朗因素影響。透過風險識別及評估已辨識若干重大風險。

董事會應最少每年對系統(包括所有相關財務、營運及合規控制及風險管理功能)之有效性進行一次檢討。

董事一直透過審核委員會及內部審計部檢討系統之有效性。系統旨在管理但不能消除未能達成業務目標之風險，並僅可提供合理但非絕對之無重大錯誤陳述或損失保證。監控措施由管理人員檢討及透過內部審計程序進行監督。

CORPORATE GOVERNANCE REPORT

企業管治報告

COMPLIANCE WITH THE CORPORATE GOVERNANCE CODE

During the year, the Company has complied with the code provisions of the Corporate Governance Code as set out in Appendix 14 to the Listing Rules.

The Directors will continuously review and improve the corporate governance practices and standards of the Company to ensure that business activities and decision making process are regulated in a proper and prudent manner.

MODEL CODE FOR SECURITIES TRANSACTIONS BY DIRECTORS OF THE COMPANY

The Company has adopted a code of conduct regarding securities transactions by the Directors on terms no less exacting than the required standard set out in Appendix 10 to the Listing Rules (the “Model Code”). Having made specific enquiry to all Directors, the Directors confirmed that they had complied with the required standard set out in the Model Code and the code of conduct regarding securities transactions by Directors adopted by the Company.

SHAREHOLDERS’ RIGHTS

Convening a Special General Meeting by Shareholders

Pursuant to the Bye-law 58, a special general meeting may be convened by the Board upon requisition by any shareholder holding not less than one-tenth of the issued share capital of the Company and the securities being held carrying the right of voting at any general meetings of the Company. The shareholder shall make a written requisition to the Board or the Company Secretary of the Company at the principal place of business of the Company in Hong Kong, specifying the shareholding information of the shareholder, his/her contact details and the proposal regarding any specified transaction/business and its supporting documents.

遵守企業管治守則

年內，本公司一直遵守上市規則附錄十四所載之企業管治守則所載之守則條文。

董事將持續檢討及改進本公司之企業管治常規及準則，以確保商業活動及決策程序受到妥善審慎規管。

本公司董事進行證券交易的標準守則

本公司已就董事進行證券交易採納一套不比上市規則附錄十所載規定準則寬鬆之行為守則（「標準守則」）。經向全體董事作出特定查詢後，董事確認彼等已遵守標準守則所載之要求標準及本公司就董事進行證券交易所採納之行為守則。

股東權利

股東召開股東特別大會

根據公司細則第58條，若任何持有本公司不少於十分之一已發行股本而所持證券附帶可於本公司任何股東大會投票權的股東提出要求，董事會可召開股東特別大會。該股東須致函本公司香港主要營業地點向本公司董事會或公司秘書提出書面要求，列明該股東的股權資料、詳細聯絡資料和有關任何具體交易／事宜的建議及有關文件。



CORPORATE GOVERNANCE REPORT

企業管治報告

SHAREHOLDERS' RIGHTS *(continued)*

Convening a Special General Meeting by Shareholders *(continued)*

The Board shall arrange to hold such general meeting within two (2) months after the receipt of such written requisition. The Company shall serve requisite notice of the general meeting, including the time, place of meeting and particulars of resolutions to be considered at the meeting and the general nature of the business.

If within twenty-one (21) days of the receipt of such written requisition, the Board fails to proceed to convene such special general meeting, the shareholder shall do so pursuant to the provisions of Section 74(3) of the Companies Act of Bermuda.

Putting Forward Proposals at General Meetings

A shareholder shall make a written requisition to the Board or the Company Secretary of the Company at the principal place of business of the Company in Hong Kong, specifying the shareholding information of the shareholder, his/her contact details and the proposal he/she intends to put forward at general meeting regarding any specified transaction/business and its supporting documents.

Making Enquiry to the Board

Shareholders may send written enquiries, either by post, by facsimiles or by email, together with his/her contact details, such as postal address, email or fax, addressing to Board of the Company at the following address or facsimile number or via email:

Room 2204-06, 22/F, World Trade Centre,
280 Gloucester Road, Causeway Bay, Hong Kong,
Fax: (852) 2635 1337
Email: ir@hanergythinfilmpower.com

股東權利 *(續)*

股東召開股東特別大會 *(續)*

董事會須於接獲有關書面要求後兩(2)個月內舉行股東大會。本公司須發出股東大會通告，列明會議時間、地點、將於會上考慮的決議案詳情和有關事項的一般性質。

倘董事會於接獲有關書面要求後二十一(21)天內仍未著手召開股東特別大會，該股東可按照百慕達公司法第74(3)條的規定自行安排。

於股東大會提呈建議

股東須致函本公司於香港的主要營業地點向本公司董事會或公司秘書提出書面要求，列明該股東的股權資料、詳細聯絡資料和擬就任何具體交易／事宜於股東大會提呈的建議及有關文件。

向董事會查詢

股東可以郵寄、傳真或電郵方式按以下地址、傳真號碼或電郵向本公司董事會提交書面查詢和郵寄地址、電郵或傳真等詳細聯絡資料：

香港銅鑼灣
告士打道280號
世貿中心22樓2204-06室
傳真：(852) 2635 1337
電郵：ir@hanergythinfilmpower.com

CORPORATE GOVERNANCE REPORT

企業管治報告



SHAREHOLDERS' RIGHTS *(continued)*

Convening a Special General Meeting by Shareholders *(continued)*

All enquiries shall be collected by the Company Secretary who shall report to the Executive Directors periodically on the enquiries collected. The Executive Directors shall review the enquiries and assign different kinds of enquiries to appropriate division head/manager for answering. After receiving the answers of all enquiries from the relevant division head/manager, the Company Secretary will collect the answers for the Executive Directors' review and approval.

Shareholders Communication Policy

The Company's shareholders communication policy aims to enhance the corporate communication effectively between the shareholders, and the Board and the senior management of the Company through various official channels so that the shareholders can access the Company's public information equally in a timely manner.

股東權利 *(續)*

股東召開股東特別大會 *(續)*

公司秘書收集所有查詢，然後定期向執行董事報告，執行董事則審閱所有查詢，並按查詢類別交由相關部門主管／經理解答。公司秘書接獲相關部門主管／經理的解答後加以收集並呈交執行董事覆核及審批。

股東溝通政策

本公司之股東溝通政策旨在透過各種正式渠道促進本公司股東、董事會與高級管理層之間有效溝通，以便股東及時平等掌握本公司公開資料。

BIOGRAPHICAL DETAILS OF DIRECTORS

董事履歷

EXECUTIVE DIRECTORS

Mr. Yuan, Yabin (“Mr. Yuan”), aged 50, was appointed as an executive Director and the Chairman of the Board on 20 May 2016. Mr. Yuan also acts as director and legal representative of certain subsidiaries of the Company. Mr. Yuan obtained a bachelor degree in engineering from Harbin Institute of Technology in 1990 and a master degree in business administration from Tsinghua University in 2003. Prior to joining Hanergy Holding Group, Mr. Yuan has worked in CPPCC National Committee and Capital Aerospace Machinery Corporation. Mr. Yuan worked in Hanergy Holding Group Limited (漢能控股集團有限公司) from 2013 to 2018. Mr. Yuan also act as the Director and President of Hanergy Mobile Energy Holding Group Co., Ltd (漢能移動能源控股集團有限公司).

Dr. Lam, Yat Ming Eddie (“Dr. Lam”), aged 50, joined the Board as an executive Director on 15 May 2014 and was appointed as the Vice Chairman of the Board on 20 May 2016. Dr. Lam also acts as director of certain subsidiaries of the Company. Dr. Lam has years of experience in banking and financing. Dr. Lam is a post-doctorate in Financial Engineering from the Shanghai Jiaotong University and holds a doctor of philosophy degree in Finance from the Hong Kong Chinese University. Dr. Lam is also a Chartered Financial Analyst, Certified Financial Planner, Fellow of Institute of Public Accountants (Australia) and Fellow of The Institute of Financial Accountants (United Kingdom). Dr. Lam has worked at various financial institutions, including CITIC Securities International, China CITIC Bank International, BCT, Hong Kong Mortgage Corporation, and Standard Chartered Bank.

執行董事

袁亞彬先生 (「袁先生」)，50歲，於二零一六年五月二十日獲委任為執行董事兼董事會主席。袁先生亦擔任本公司若干附屬公司的董事及法人代表。袁先生於一九九零年取得哈爾濱工業大學工學學士學位，二零零三年取得清華大學工商管理碩士學位。袁先生於二零一三年至二零一八年任職於漢能控股集團有限公司。在加入漢能控股集團前，袁先生曾任職於全國政協機關和首都航天機械公司。袁先生現任Alta Devices, Inc. 董事長。彼亦擔任漢能移動能源控股集團有限公司的董事兼總裁。

林一鳴博士 (「林博士」)，50歲，於二零一四年五月十五日獲委任為執行董事，並於二零一六年五月二十日獲委任為董事會副主席。林博士亦擔任本公司若干附屬公司的董事。林博士於銀行及金融方面擁有多年經驗。林博士為上海交通大學財務工程博士後，持有香港中文大學金融學哲學博士學位。林博士亦為特許財務分析師、認可財務策劃師、澳洲公共會計師公會資深會員及英國財務會計師公會資深會員。林博士曾任職於多間金融機構，包括中信證券國際、中信銀行國際、BCT銀聯集團、香港按揭證券公司和渣打銀行等。

BIOGRAPHICAL DETAILS OF DIRECTORS

董事履歷

EXECUTIVE DIRECTORS *(continued)*

Mr. Si Haijian (“Mr. Si”), aged 40, joined the Board as an executive Director on 21 December 2015 and was appointed as the Chief Executive Officer of the Company on 20 May 2016. Mr. Si also acts as director and legal representative of certain subsidiaries of the Company. Mr. Si obtained a bachelor’s degree in accounting from Shandong College of Economics (山東經濟學院) in 2002 and an MBA degree from Beijing Jiaotong University (北京交通大學) in 2008. From 2016, Mr. Si is studying in Doctor of Management in Beijing Jiatong University (北京交通大學). Mr. Si is a fellow member of the Association of Chartered Certified Accountants, a Certified Internal Auditor and a Certified Public Accountant of the PRC. Mr. Si has extensive experiences in financial management and general management. He joined Hanergy Holding in April 2014 and worked for Hanergy Global Solar Power & Applications Group as chief executive officer.

Mr. Huang Songchun (“Mr. Huang”), aged 53, was appointed as an executive Director and the Financial Controller of the Company on 21 December 2015. Mr. Huang also acts as director of certain subsidiaries of the Company. Mr. Huang obtained a bachelor’s degree in economics from Northern Jiatong University (北方交通大學) (currently known as Beijing Jiatong University北京交通大學) in 1988. Mr. Huang worked in Guangshen Railway Company (廣深鐵路總公司) (currently known as Guangzhou Railway (Group) Company廣州鐵路(集團)公司) from 1988 to 2004. Mr. Huang worked in Hanergy Holding Group Limited (漢能控股集團有限公司) from 2004 to 2018.

執行董事 *(續)*

司海健先生 (「司先生」)，40歲，於二零一五年十二月二十一日加入董事會擔任執行董事，並於二零一六年五月二十日獲委任為本公司首席執行官。司先生亦擔任本公司若干附屬公司的董事及法人代表。司先生於二零零二年取得山東經濟學院會計學專業學士學位，並於二零零八年取得北京交通大學工商管理碩士學位。自二零一六年起，司先生於北京交通大學修讀管理博士學位。司先生現為英國特許公認會計師公會資深會員、國際註冊內部審計師及中國註冊會計師。司先生擁有多年的財務管理和全面管理經驗，於二零一四年四月加入漢能控股，曾任漢能全球光伏應用集團首席執行官。

黃松春先生 (「黃先生」)，53歲，於二零一五年十二月二十一日獲委任為本公司執行董事兼財務總監。黃先生亦擔任本公司若干附屬公司之董事。彼於一九八八年取得北方交通大學(現稱為北京交通大學)經濟學學士學位。黃先生於一九八八年至二零零四年曾任職於廣深鐵路總公司(現稱為廣州鐵路(集團)公司)。黃先生於二零零四年至二零一八年任職於漢能控股集團有限公司。

* For identification purpose only

BIOGRAPHICAL DETAILS OF DIRECTORS

董事履歷

EXECUTIVE DIRECTORS (continued)

Mr. Xu, Xiaohua (“Mr. Xu”), aged 40, was appointed as an executive Director on 20 May 2016. Mr. Xu obtained a master degree in microelectronics and solid-state electronics from Institute of Semiconductors, Chinese Academy of Sciences in 2004. Mr. Xu joined Apollo Precision (Fujian) Limited in 2010 and currently acts as management personnel of the Company. Mr. Xu is currently responsible for the domestic operations of Hanergy’s flexible industrial application department and research and development of new technology for Hanergy’s equipment business department. Mr. Xu also acts as director and legal representative of certain subsidiaries of the Company.

Mr. Zhang Bin (“Mr. Zhang”), aged 54, was appointed as an executive Director on 1 October 2016. Mr. Zhang also acts as director and legal representative of certain subsidiaries of the Company. Mr. Zhang obtained a master degree in engineering from the Beihang University in 2009. Mr. Zhang has around 30 years’ experience in corporate brand and sales management. Mr. Zhang had served as the Vice President of Jomoo Kitchen & Bathroom Appliances Co., Ltd. Mr. Zhang is currently the Senior Vice President of Hanergy Holding Group Limited.

INDEPENDENT NON-EXECUTIVE DIRECTORS

Mr. Lo Man Tuen, G.B.S., JP (“Mr. Lo”), aged 70, was appointed as an independent non-executive Director on 4 September 2017. Mr. Lo is currently the chairman of Wing Li Group (International) Ltd.. Mr. Lo also hosts a number of posts such as the chairman of Wing Li Packaging Limited, the chairman of Glory Sign International Limited and the non-executive director of China Shandong Hi-Speed Financial Group Limited (00412.HK), a company listed on the Main Board of the Stock Exchange. In respect of public offices, Mr. Lo is a member of the 9th to 12th National Committee of the Chinese People’s Political Consultative Conference. In addition, Mr. Lo is the vice chairman of Subcommittee of 12th Foreign Affairs of CPPCC National Committee and the vice-chairman of 12th All-China Federation of Industry and Commerce. In 2013, Mr. Lo was also appointed as the executive director of Hong Kong Association for the Promotion of Peaceful Reunification of China. In 2015, Mr. Lo was appointed as the president of China Peaceful Development General Summit of Hong Kong Macao Taiwan Diaspora. Mr. Lo was also nominated as the honorary life chairman of Chinese General Chamber of Commerce of Hong Kong in 2016. Mr. Lo is currently the vice chairman of All-China Federation of Returned Overseas Chinese (ACFROC). In recognition of his years-long contribution to the society, Mr. Lo was awarded the Gold Bauhinia Star, Silver Bauhinia Star, Bronze Bauhinia Star, Medal of Honour and Justice of the Peace.

執行董事(續)

徐曉華先生(「徐先生」)，40歲，於二零一六年五月二十日獲委任為執行董事。徐先生於二零零四年取得中國科學院半導體研究所微電子學與固體電子學碩士學位。徐先生於二零一零年加入福建鉑陽精工設備有限公司，現於本公司任職管理層。徐先生目前主要負責漢能柔性工業應用事業部在國內的運營及漢能裝備事業部的研發及新技術拓展。徐先生亦擔任本公司若干附屬公司的董事及法人代表。

張彬先生(「張先生」)，54歲，於二零一六年十月一日獲委任為執行董事。張先生亦擔任本公司若干附屬公司的董事及法人代表。張先生於二零零九年取得北京航空航天大學工程碩士學位。張先生有近三十年的企業品牌及營銷管理經驗。張先生曾任職於九牧廚衛股份有限公司擔任副總裁。張先生現為漢能控股集團有限公司之高級副總裁。

獨立非執行董事

盧文端先生(「盧先生」)，G.B.S.，太平紳士，70歲，於二零一七年九月四日獲委任為獨立非執行董事。盧先生現出任榮利集團(國際)有限公司主席。同時，盧先生亦擔任榮利箱包有限公司董事長、榮徽國際有限公司董事長和中國山東高速金融集團有限公司(00412.HK)(一間於聯交所主板上市之公司)非執行董事等職務。在公職上，盧先生乃中國人民政治協商會議第九-十二屆全國委員會委員。另外，盧先生為第十二屆全國政協外事委員會副主任及第十二屆中華全國工商業聯合會副主席。於二零一三年，盧先生亦被委任為中國和乎統一促進會香港總會理事長。在二零一五年，盧先生被任命為中國港澳臺僑和平發展總會會長。盧先生也在二零一六年被提名為香港中華總商會永遠榮譽會長。盧先生現為中華全國歸國華僑聯合會(簡稱中國僑聯)副主席。由於盧先生多年對社會的貢獻，令其獲得金紫荊星章、銀紫荊星章、銅紫荊星章、榮譽勳章及太平紳士等榮譽。

BIOGRAPHICAL DETAILS OF DIRECTORS

董事履歷

INDEPENDENT NON-EXECUTIVE DIRECTORS *(continued)*

Prof. He Xiaofeng (“Prof. He”), aged 63, was appointed as an independent non-executive Director on 4 September 2017. Prof. He obtained a Bachelor’s degree and a Master’s degree in Economics in 1982 and 1984 from Peking University, respectively. He is currently the professor of the Department of Finance, School of Economics of Peking University (北京大學經濟學院金融學系) since August 2000 and has been a doctoral supervisor since August 2001 and a director of the Research Center of Financial and Industrial Development of Peking University (北京大學金融與產業發展研究中心) since August 2005. He has taught in the School of Economics of Peking University (北京大學經濟學院) since 1984. Prof. He has also served as a council member of China Enterprises Investment Association (中國企業投資協會) and deputy director of Financial Enterprises Investment Committee (金融企業投資委員會) from 2006 to present, vice chairman of Beijing Private Equity Association (北京股權投資基金協會) from 2008 to present, has served as an independent director of E Fund Management Co., Ltd. (易方達基金管理有限公司) from 2010 to May 2016 and served as a director of Beijing Qingchang Power Technology Co., Ltd. (北京清暢電力技術股份有限公司) (SZSE Stock Code: 430057) from February 2012 to February 2015, and has served as a director of Beijing Fof Capital Co., Ltd from 2015 to present. He was appointed as a member of the Remuneration Committee and the Nomination Committee of the Beijing Capital Grand Limited (Stock Code: 1329) on 28 December 2016. He was appointed as an independent non-executive Director and a member of each of the Audit Committee and Strategic Investment Committee of the Beijing Capital Grand Limited on 21 December 2013.

獨立非執行董事(續)

何小鋒教授(「何教授」)，63歲，於二零一七年九月四日獲委任為獨立非執行董事。何教授於一九八二年和一九八四年分別取得北京大學經濟學學士及經濟學碩士學位。彼自二零零零年八月至今為北京大學經濟學院金融學系教授，自二零零一年八月至今為博士生導師及自二零零五年八月至今為北京大學金融與產業發展研究中心主任。彼自一九八四年在北京大學經濟學院任教。何教授自二零零六年至今擔任中國企業投資協會常務理事及金融企業投資委員會副主任，自二零零八年至今擔任北京股權投資基金協會副會長，自二零一零年至二零一六年五月擔任易方達基金管理有限公司的獨立董事，自二零一二年二月至二零一五年二月出任北京清暢電力技術股份有限公司(深圳證券交易所股份代號：430057)的董事，自二零一五年至今擔任北京方富資本管理有限公司董事。於二零一六年十二月二十八日獲委任為首創鉅大有限公司(股份代號：1329)薪酬委員會及提名委員會成員。於二零一三年十二月二十一日獲委任為首創鉅大有限公司獨立非執行董事以及審核委員會和戰略投資委員會成員。

BIOGRAPHICAL DETAILS OF DIRECTORS

董事履歷

INDEPENDENT NON-EXECUTIVE DIRECTORS *(continued)*

Prof. Zhang Qiusheng (“Prof. Zhang”), aged 51, was appointed as an independent non-executive Director on 4 September 2017. Prof. Zhang obtained a doctoral degree in Economics from Beijing Jiaotong University in 1992. He is currently a second-grade professor of Beijing Jiaotong University, the Dean of the School of Economics and Management of Beijing Jiaotong University, the director of the Centre of China Mergers and Acquisitions Research, a member of course evaluation team of the Academic Degrees Committee of the State Council, an candidate of “Accountant Specialist Training Project” of the Ministry of Finance and the Vice Chairman of China Federation of Logistics & Purchasing. He is also a certified public accountant and a certified tax counsel in the PRC. He served as the vice mayor of Liuzhou of Guangxi Zhuang Autonomous Region, and external directors of central enterprises.

Mr. Wang Dan (“Mr. Wang”), aged 41, was appointed as an independent non-executive Director on 4 September 2017. Mr. Wang obtained a Bachelor’s degree in Law from China University of Political Science and Law in 2001 and a Master’s degree in Law from University of Essex in 2004. He currently is the director and the senior partner of The Longan Law Firm, the part-time professor of China University of Political Science and Law, a member of China Banking Law Society, a member of association of Bankruptcy Law Association of East Asia. He is the independent director of listed companies in the PRC, which is principally engaged in securities issuance and listing, re-financing, re-financing of non-listed companies, venture capital investment and private equity funds, internet and the e-commerce and risk prevention of corporate law. He is currently the legal counsel of various listed-companies, listed companies on National Equities Exchange and Quotations, larger sized state-owned enterprises and IT companies. He also publishes the book “Legal Practices of Electronic Commerce (電子商務法律實務)”.

* For identification purpose only

獨立非執行董事(續)

張秋生教授(「張教授」)，51歲，於二零一七年九月四日獲委任為獨立非執行董事。張教授於一九九二年取得北京交通大學經濟學博士學位，現為北京交通大學二級教授，經濟管理學院院長，中國企業兼併重組研究中心主任，國務院學位委員會學科評議組成員，財政部「會計名家培養工程」入選者，中國物流與採購聯合會副會長，具有中國註冊會計師和中國註冊稅務師資格。曾擔任廣西壯族自治區柳州市副市長，及中央企業外部董事。

王丹先生(「王先生」)，41歲，於二零一七年九月四日獲委任為獨立非執行董事。王先生於二零零一年於中國政法大學畢業取得法學學士學位，二零零四年於英國埃塞克斯大學畢業，獲得法學碩士學位。現任北京市隆安律師事務所主任、高級合夥人，中國政法大學兼職教授，中國銀行法學研究會理事，東亞破產法協會理事。具有擔任國內上市公司獨立董事的資格。主要業務領域以證券發行和上市、再融資，非上市公司融資，創業投資及私募股權基金，資訊網路及電子商務，公司法律風險防控為主。現為多家上市公司、新三板掛牌公司、大型國有企業、互聯網公司的法律顧問，著有《電子商務法律實務》一書。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告書



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To the shareholders of Hanergy Thin Film Power Group Limited

(Incorporated in Bermuda with limited liability)

致漢能薄膜發電集團有限公司全體股東

(於百慕達註冊成立之有限公司)

QUALIFIED OPINION

We have audited the consolidated financial statements of Hanergy Thin Film Power Group Limited (the "Company") and its subsidiaries (the "Group") set out on pages 126 to 318, which comprise the consolidated statement of financial position as at 31 December 2018, and the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the 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, except for the possible effects of the matter described in the *Basis for qualified opinion* section of our report, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2018, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

有保留意見

本核數師(以下簡稱「我們」)已審核載於第126頁至第318頁之漢能薄膜發電集團有限公司(「貴公司」)及其附屬公司(「貴集團」)之綜合財務報表，包括於二零一八年十二月三十一日之綜合財務狀況表與截至該日止年度之綜合損益及其他全面收益表、綜合權益變動表及綜合現金流量報表，以及綜合財務報表附註(包括主要會計政策概要)。

我們認為，除本報告「有保留意見之基礎」一段所述相關事項可能造成的影響外，綜合財務報表已根據香港會計師公會(「香港會計師公會」)頒佈之香港財務報告準則(「香港財務報告準則」)真實而公平地反映 貴集團於二零一八年十二月三十一日的綜合財務狀況，以及 貴集團截至該日止年度的綜合財務表現及綜合現金流量，並已按照香港《公司條例》的披露規定妥為編製。

INDEPENDENT AUDITOR'S REPORT

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BASIS FOR QUALIFIED OPINION

As at 31 December 2018, included in the Group's trade receivables and contract assets (previously known as gross amount due from contract customers as at 31 December 2017) were amounts due from a third-party customer amounting to HK\$1,084,607,000 (2017: HK\$1,816,927,000) and HK\$1,218,724,000 (2017: HK\$865,448,000) respectively. We were unable to obtain sufficient appropriate audit evidence about the recoverability of the Group's trade receivables and contract assets due from the aforesaid third-party customer of HK\$2,303,331,000. Consequently, we were unable to determine whether any provisions are required for these amounts. Any provision for the expected credit loss of these balances would reduce the net assets of the Group as at 31 December 2018 and decrease the Group's net profit for the year ended 31 December 2018.

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSA") issued by the 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 qualified opinion.

有保留意見之基礎

於二零一八年十二月三十一日，貴集團之貿易應收款項及合同資產（前稱於二零一七年十二月三十一日之應收合同客戶總額）包括應收一位第三方客戶之款項，分別為1,084,607,000港元（二零一七年：1,816,927,000港元）及1,218,724,000港元（二零一七年：865,448,000港元）。我們未能取得關於貴集團剩餘應收前述第三方客戶之貿易應收款項及應收合約客戶總額2,303,331,000港元之可回收性的充分適當的審核證據。因此，我們無法判斷是否需要對該等款項計提準備。任何對上述結餘可回收性計提的準備將會減少貴集團於二零一八年十二月三十一日之淨資產，同時減少貴集團截至二零一八年十二月三十一日止年度之淨溢利。

我們已根據香港會計師公會頒佈之香港審核準則（「香港審計準則」）進行審核。我們於該等準則下之責任會在本報告中「核數師就審核綜合財務報表須承擔之責任」中進一步詳述。根據香港會計師公會之專業會計師道德守則（「守則」），我們獨立於貴集團，並已遵循守則履行其他道德責任。我們相信，我們已獲得充足和適當之審核憑證為我們之有保留意見提供基礎。

INDEPENDENT AUDITOR'S REPORT

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KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. In addition to the matters described in the *Basis for qualified opinion* section of our report, we have determined the matters described below to be the key audit matters to be communicated in our report. 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. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

關鍵審核事項

根據我們的專業判斷，關鍵審核事項為我們審核本期綜合財務報表中最重要之事項。除已在本報告中「有保留意見之基礎」中陳述的事項，我們將下述事項識別為需於本報告中溝通之關鍵審核事項。此等事項是在我們在審核綜合財務報表整體上及作出意見時進行處理的，而不會就此等事項單獨發表意見。我們對下述每一事項在審計中是如何應對的描述也以此為背景。

我們已經履行本報告中「核數師就審核綜合財務報表須承擔之責任」部分闡述之責任，包括與這些關鍵審計事項相關之責任。相應地，我們的審核工作包括執行為應對評估之綜合財務報表重大錯誤陳述風險而設計之審核程序。我們執行審核程序之結果，包括應對下述關鍵審核事項所執行之程序，為綜合財務報表整體發表審核意見提供基礎。

INDEPENDENT AUDITOR'S REPORT

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KEY AUDIT MATTERS (continued)

Key audit matter	How our audit addressed the key audit matter
<p>Impairment of property, plant and equipment</p> <p>As at 31 December 2018, property, plant and equipment ("PP&E") of HK\$905 million contributed a significant portion (79%) of the Group's total non-current assets. During the year, certain entities in the Group that have large amount of PP&E were in loss positions.</p> <p>Management identified these entities as different cash generating units ("CGUs") and performed impairment assessment on their PP&E. Determining whether an impairment indicator exists and estimating the recoverable amount requires management's significant judgements and estimates including estimation of sales volume, selling prices, manufacturing and other operating costs, terminal value and the discount rate. Actual cash flows are likely to be different from those estimated or forecast since anticipated events sometimes do not occur as expected and unforeseen events may arise, and their impact on estimates and forecasts may be material.</p> <p>The accounting policy, significant accounting judgements and estimates and disclosures about the amount of provision and the balance of PP&E are included in notes 2.4, 3, 8 and 13 to the consolidated financial statements.</p>	<p>We discussed with management about the business situation and business plan of each CGU, including reading of current sales agreements or sales orders of such CGUs, to assess management's identification of impairment indicators. We assessed the key assumptions adopted in the impairment assessment, such as the sales volume, selling prices and manufacturing and other operating costs by comparing with historical trends and referencing to the signed sales contracts and evaluating management's adjustments in the future by referencing to available market information. We also involved our internal valuation specialist to assess the methodology and discount rate applied in the model. We reviewed the adequacy of disclosure made in the Group's consolidated financial statements in respect of the impairment of PP&E.</p>

關鍵審核事項(續)

關鍵審核事項	審核時如何因應此關鍵審核事項
<p>物業、廠房及設備之減值</p> <p>於二零一八年十二月三十一日，物業、廠房及設備達905百萬港元，佔貴集團非流動資產總額之重大部分(79%)。於本年度，貴集團若干持有大額物業、廠房及設備之實體處於虧損狀態。</p> <p>管理層將該等實體識別為不同現金產生單位，並就其物業、廠房及設備進行減值評估。釐定是否出現減值跡象及估計可收回金額時，均需要管理層作出大量判斷及估計，例如估計銷售量、售價、製造及其他經營成本、最終價值及貼現率。實際現金流量有可能與估計或預測不同，因為部分預估事項不會如預期出現，又會有預期以外之事項會出現，而其對估計及預測之影響可能重大。</p> <p>與物業、廠房及設備撥備及結餘金額有關之會計政策、主要會計判斷及估計及披露資料載於綜合財務報表附註2.4、3、8及13。</p>	<p>我們與管理層討論各現金產生單位之營商狀況及商業計劃(包括閱讀相應現金產生單位之現有銷售協議或銷售訂單)，以評估管理層對減值跡象之識別情況。我們評估減值評估所採用之主要假設，如銷售量、售價及製造及其他經營成本，與過往之銷售合同比較以及參考已簽訂之銷售合同，並參考可用市場資料，評價管理層日後之調整。我們亦請內部估值專家，評估用於減值評估之方法及貼現率。我們亦評估貴集團綜合財務報表內就物業、廠房及設備減值所作出之披露是否充分。</p>

INDEPENDENT AUDITOR'S REPORT

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KEY AUDIT MATTERS (continued)

Key audit matter	How our audit addressed the key audit matter
<p>Impairment of inventories</p> <p>Inventories of the Group are classified into raw materials, photovoltaic ("PV") power generation projects to be sold, PV modules and PV application products. The total amount of inventories (before any inventory provision) as at 31 December 2018 was HK\$3,121 million and the inventory provision provided was HK\$362 million (12% of inventory balance before any inventory provision). The carrying amount of inventories contributed a significant part (10%) of the Group's total current assets as at 31 December 2018.</p> <p>The estimation of the net realisable value ("NRV") of these inventories requires management to make judgements based on these inventories' ages, obsolescence, future usage plan, estimated net selling prices as well as inventory disposal plans. Actual sales or usages are likely to be different from those estimated or forecast since anticipated events sometimes do not occur as expected and unforeseen events may arise, and their impact on estimates and forecasts may be material.</p> <p>The accounting policy, significant accounting judgements and estimates and the disclosures about the amount of provision and the balance of inventories are included in notes 2.4, 3, 8 and 16 to the consolidated financial statements.</p>	<p>We obtained and understood the progress of new projects implemented in 2018 and reviewed the subsequent usage and sales of inventories in 2019 together with the management's plan for the years after. We reviewed the NRV calculation provided by management to assess the methodology, key assumptions and parameters used. We compared the price estimated in the future sales with the Group's historical data and subsequent sales contracts. We also reviewed the adequacy of disclosure made in the Group's consolidated financial statements in respect of the impairment of inventories.</p>

關鍵審核事項(續)

關鍵審核事項	審核時如何因應此關鍵審核事項
<p>存貨減值</p> <p>貴集團之存貨被分類為原料、將予售出之光伏發電項目、光伏組件及光伏應用產品。於二零一八年十二月三十一日，存貨總額(未扣任何存貨撥備)為3,121百萬港元，而存貨撥備則達362百萬港元(佔未扣任何存貨撥備之前的存貨總額之12%)。於二零一八年十二月三十一日，存貨賬面值佔 貴集團流動資產之重大部分(10%)。</p> <p>就該等存貨可變現淨值進行估算須管理層按該等存貨之年期、過時程度、未來用途計劃、估算淨售價，以至於存貨出售計劃。實際銷售或用途很有可能與估算或預測不同，因為所預估之事件有時不如預期般出現，而預期以外之情況或會出現，而其對估算及預測之影響或會重大。</p> <p>與存貨撥備及結餘金額有關之會計政策、主要會計判斷及估計及披露資料載於綜合財務報表附註2.4、3、8及16。</p>	<p>我們獲取並瞭解於二零一八年落實新項目之進展，並覆查存貨於二零一八年之其後用途及銷售，以及往後年度之管理層計劃。我們覆查管理層所提供之存貨可變現淨值之計算，以評估所用之方法、主要假設及所用參數。我們將日後銷售之估算價值與 貴集團之歷史數據及期後之銷售合同相比。我們亦評估 貴集團綜合財務報表所作出之披露是否充分。</p>

INDEPENDENT AUDITOR'S REPORT

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KEY AUDIT MATTERS (continued)

Key audit matter	How our audit addressed the key audit matter
<p>Impairment assessment of financial assets</p> <p>As at 31 December 2018, the aggregate of trade receivables of HK\$3,935 million, contract assets of HK\$12,101 million and other receivables of HK\$4,102 million contributed a significant portion (70%) of the Group's total current assets.</p> <p>Assessing expected credit losses of such assets is a judgemental area which involved significant management's judgement and estimation on forecasting future economic conditions.</p> <p>The accounting policy, significant accounting judgements and estimates, and the disclosures about the amount of provision and the impairment approaches of trade receivables, contract assets and other receivables are included in notes 2.4, 3, 8, 17, 18, 19 and 36 to the consolidated financial statements.</p>	<p>We obtained and evaluated management's assessment of the expected credit loss of trade receivables, contract assets and other receivables, which was based on the historical loss rates by testing the debtors' ageing analysis, discussing with management about the status of significant overdue individual debtor balances, reviewing the historical settlement pattern and subsequent settlement of individual debtors, and evaluating information such as actual or expected significant changes in the operating results of customers, actual or expected significant adverse changes in market conditions that may affect the business and customers' financial position by reading public available news and releases and discussing with management for the estimated impact thereon. We also reviewed the adequacy of disclosure made in the Group's consolidated financial statements in respect of the impairment of trade receivables, contract assets and other receivables.</p>

關鍵審核事項(續)

關鍵審核事項	審核時如何因應此關鍵審核事項
<p>金融資產減值評估</p> <p>於二零一八年十二月三十一日，貿易應收款項3,935百萬港元，合同資產12,101百萬港元及其他應收款項4,102百萬港元合共佔貴集團流動資產總值之重大部分(70%)。</p> <p>評估該等資產的預期信貸虧損，涉及管理層對預測未來經濟狀況作出的重大判斷及估計不確定性。</p> <p>有關撥備金額及貿易應收款項、合同資產及其他應收款項的減值方法的會計政策、重大會計判斷及估計以及披露資料載於綜合財務報表附註2.4、3、8、17、18、19及36。</p>	<p>我們透過測試債務人的賬齡分析，與管理層討論重大逾期債務人餘額狀況，檢討個別債務人的過往結算情況及後續結算，以及透過閱讀公眾可獲取的新聞及發佈並與管理層討論有關估計影響，評估如客戶的營運業績的實際或預期重大變動及可能影響業務及客戶財務狀況的市場條件的實際或預期重大負面變動等資料，以獲取及評估管理層對貿易應收款項、合同資產及其他應收款項的預期信貸虧損的評估。</p> <p>我們亦已檢討貴集團綜合財務報表就貿易應收款項、合同資產及其他應收款項減值作出披露的充足程度。</p>

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告書



KEY AUDIT MATTERS (continued)

Key audit matter	How our audit addressed the key audit matter
<p>Revenue recognition for construction contracts</p> <p>The Group conducted several construction contracts both in Manufacturing segment to deliver turnkey production lines for the manufacturing of thin-film solar photovoltaic modules and in Downstream segment to construct a series of solar power stations for certain small to medium-sized enterprises and poverty alleviation projects. Revenue from these fixed price construction contracts was recognised over time, measured by reference to completion of the specific transaction assessed on the basis of the actual costs incurred up to the end of the reporting period as a percentage of total estimated costs for each contract. Construction contract revenue recognised during the period amounted to HK\$20,048 million, which contributed a significant part (94%) of the total revenue of the Group for the year ended 31 December 2018.</p>	<p>We obtained and understood the terms of the construction contracts the Group entered with its customers. We assessed the completion percentage calculated by management, including assessing the total cost budgeted by comparing with its historical data for similar contracts and test checked the actual cost incurred to date to relevant equipment purchase contracts, goods delivery notes and allocated labour costs for service rendered. We performed physical stocktaking to a selected samples of production lines and house-hold rooftop solar systems. We also assessed the adequacy of disclosure made in the Group's consolidated financial statements about the revenue recognition on construction contract works.</p>

關鍵審核事項(續)

關鍵審核事項	審核時如何因應此關鍵審核事項
<p>建設合同之收入確認</p> <p>貴集團分別就製造分部及下游分部進行多份建設合同，以分別就製造並交付薄膜太陽能光伏組件製造用整套生產線及為若干中小企業製造一系列太陽能電站以及扶貧項目。來自該等固定價格建設合同之收入隨時間確認，參照特定交易之完成情況（按每份合同截至報告期末已產生成本佔該合同總估計成本之百分比評估）計量。期內確認建設合同收入20,048百萬港元，佔截至二零一八年十二月三十一日止年度貴集團總收入之重大部分(94%)。</p>	<p>我們取得並了解貴集團與客戶訂立建設合同之條款。我們評估管理層計算得出之完成比例，包括將預算總成本與同類合同之歷史數據相比，並抽样查核現時就相應設備採購合同所產生之實際成本、運貨憑據及就所提供服務分配之勞動成本。我們抽样就生產線及戶用屋頂太陽能系統進行實際盤點。我們亦評估貴集團綜合財務報表就建設合同工程之收入確認所作出之披露是否充分。</p>

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告書



KEY AUDIT MATTERS (continued)

Key audit matter

Revenue recognition for construction contracts (continued)

Revenue recognition on contract work is dependent on the estimation of the total outcome of the construction contract, as well as the work performed to date. Significant judgements are required to estimate the total contract costs, comprising direct materials, the costs of subcontracting, direct labour and an appropriate proportion of variable and fixed construction overheads. Actual outcomes in terms of total contract costs may be higher or lower than those estimated at the end of the reporting period, which would affect the revenue recognised in the current period and in the future periods.

The accounting policy and significant accounting judgements and estimates related to construction contracts and disclosures of contract revenue are included in notes 2.4, 3 and 5 to the consolidated financial statements.

How our audit addressed the key audit matter

關鍵審核事項 (續)

關鍵審核事項

審核時如何因應此關鍵審核事項

建設合同之收入確認 (續)

就合同工程確認收入，視乎對施工合同總後果之估算，以及至今已進行之工程。估計總合同成本時需要重大判斷，包括直接材料、分包成本、直接勞工及恰當比份之可變及固定施工間接成本。按總合同成本計算之實際後果或會高於或低於報告期末之估算，或會對本期間及未來期間確認之收入有影響。

與施工合同及披露合同收入有關之會計政策及主要會計判斷及估計載於綜合財務報表附註2.4、3及5。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告書



OTHER INFORMATION INCLUDED IN THE ANNUAL REPORT

The directors of the Company are responsible for the other information. The other information comprises the information included in the Annual Report, other than 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.

年報所載之其他資料

貴公司董事對其他資料負責。其他資料包括本年報內的資料(不包括綜合財務報表及本核數師報告)。

我們對綜合財務報表所發表之意見並未涵蓋其他資料。我們不對其他資料發表任何形式之核證結論。

就審核綜合財務報表而言，我們的責任是閱讀其他資料，從而考慮其他資料是否與綜合財務報表或我們在審核過程中獲悉之資料存在重大不符，或似乎存在重大錯誤陳述。倘若我們基於已完成之工作認為其他資料出現重大錯誤陳述，我們須報告該事實。我們就此並無任何事項須報告。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告書



RESPONSIBILITIES OF THE DIRECTORS 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 HKFRSs issued by the HKICPA 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 of the Company 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 of the Company either intend to liquidate the Group or to cease operations or have no realistic alternative but to do so.

The directors of the Company are assisted by the Audit Committee in discharging their responsibilities 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. Our report is made solely to you, as a body, in accordance with section 90 of the Bermuda Companies Act 1981, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

董事就綜合財務報表須承擔之責任

貴公司董事須負責根據香港會計師公會頒佈之香港財務報告準則以及香港《公司條例》之披露規定，編製真實而公平之綜合財務報表，以及維持董事認為編製綜合財務報表所必需之有關內部控制，以確保有關綜合財務報表不存在由於欺詐或錯誤而導致之重大錯誤陳述。

在編製綜合財務報表時，貴公司董事須負責評估貴集團持續經營之能力，並披露與持續經營有關之事項（如適用）。除非董事有意將貴集團清盤，或停止營運，或除此之外並無其他實際可行之辦法，否則貴公司董事須採用以持續經營為基礎之會計法。

貴公司董事協助審核委員會履行彼等監督貴集團之財務報告流程之責任。

核數師就審核綜合財務報表須承擔之責任

我們的目標是合理保證整體上綜合財務報表是否不存在由於欺詐或錯誤而導致之重大錯誤陳述，並出具包含我們意見之核數師報告。我們的報告乃依據百慕達一九八一年公司法第90條編製，以及僅向全體股東報告我們的意見，除此之外，本報告別無其他目的。我們不會就本報告之內容向任何其他人士負上或承擔任何責任。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告書



AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS *(continued)*

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSA's 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 HKSA's, we exercise professional judgement and maintain professional scepticism 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.

核數師就審核綜合財務報表須承擔 之責任(續)

合理保證屬高層次之核證，但不能擔保根據香港審計準則進行之審核在某一重大錯誤陳述存在時總能發現。重大錯誤陳述可源於欺詐或錯誤，倘個別或整體在合理預期情況下可影響使用者根據綜合財務報表作出之經濟決定時，被視為重大錯誤陳述。

我們根據香港審計準則進行審核之工作，運用專業判斷，並在整個審核過程中保持專業懷疑態度。我們亦：

- 識別及評估綜合財務報表由於欺詐或錯誤而導致之重大錯報風險，因應這些風險設計及執行審核程序，獲得充足及適當之審核憑證為我們的意見提供基礎。由於欺詐涉及合謀串通、偽造、故意遺漏、誤導性陳述或凌駕內部控制，因此未能發現由此造成之重大錯報風險比未能發現由於錯誤而導致之重大錯報風險更高。
- 了解與審核有關之內部控制，以設計恰當之審核程序，但並非旨在對貴集團之內部控制之有效性發表意見。
- 評估所用會計政策是否恰當，以及董事所作出之會計估計和相關披露是否合理。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告書



AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS *(continued)*

- 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.
- 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.

核數師就審核綜合財務報表須承擔 之責任(續)

- 對董事採用以持續經營為基礎之會計法是否恰當作出結論，並根據已獲取之審核憑證，確定是否有對貴集團持續經營之能力構成重大疑問之事件或情況等重大不確定因素。倘若我們認為存在重大不確定因素，我們需要在核數師報告中提請使用者注意綜合財務報表內之相關資料披露，或如果相關披露不足，則修訂我們的意見。我們的結論是基於截至核數師報告日期所獲得之審核憑證。然而，未來事件或情況可能導致貴集團不再具有持續經營之能力。
- 評估綜合財務報表之整體列報、架構和內容，包括披露資料，以及綜合財務報表是否已公平地反映及列報相關交易及事項。
- 就貴集團內各實體或業務活動之財務資料獲得充足適當之審核憑證，以就綜合財務報表發表意見。我們須負責指導、監督和執行貴集團之審核工作。我們須為我們的審核意見承擔全部責任。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告書



AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS *(continued)*

We communicate with the Audit Committee 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 the Audit Committee 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 the Audit Committee, 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 this independent auditor's report is Cheong Ming Yik.

Ernst & Young
Certified Public Accountants
Hong Kong

29 March 2019

核數師就審核綜合財務報表須承擔 之責任 *(續)*

我們就審核工作之計劃範圍和時間、在審核過程中之主要發現，包括我們在審核過程中識別的內部控制之重大缺失及其他事項與審核委員會進行溝通。

我們亦向審核委員會作出聲明，確認我們已遵守有關獨立性之道德要求，並就所有被合理認為可能影響我們的獨立性之關係和其他事宜以及適用之相關保障措施，與審核委員會進行溝通。

我們通過與審核委員會溝通，確定哪些是本期綜合財務報表審核工作之最重要事項，即關鍵審核事項。除非法律或法規不容許公開披露此等事項或在極罕有之情況下，我們認為披露此等事項可合理預期之不良後果將超過公眾知悉此等事項之利益而不應在報告中予以披露，否則我們會在核數師報告中描述此等事項。

出具本獨立核數師報告的審計項目合夥人為張明益。

安永會計師事務所
執業會計師
香港

二零一九年三月二十九日

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

綜合損益及其他全面收益表

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

		Notes 附註	2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Revenue from contracts with customers	與客戶簽訂合同之收入	5	21,251,772	6,147,385
Cost of sales	銷售成本		(9,129,410)	(3,472,144)
Gross profit	毛利		12,122,362	2,675,241
Other income and gains	其他收入及收益	6	224,130	76,470
Loss on disposal of subsidiaries, net	出售附屬公司虧損，淨額		-	(5,568)
Selling and distribution expenses	銷售及分銷費用		(854,160)	(414,463)
Administrative expenses	行政費用		(2,250,896)	(990,090)
Research and development costs	研發成本		(1,050,418)	(621,678)
Other expenses	其他費用		(578,673)	(214,449)
Finance costs	財務費用	7	(41,849)	(59,339)
PROFIT BEFORE TAX	稅前溢利	8	7,570,496	446,124
Income tax expense	所得稅支出	9	(2,377,428)	(185,092)
PROFIT FOR THE YEAR	本年度溢利		5,193,068	261,032
OTHER COMPREHENSIVE (LOSS)/ INCOME THAT MAY BE RECLASSIFIED TO PROFIT OR LOSS IN SUBSEQUENT PERIODS:	於其後期間可能重新分類至損益之其他全面(虧損)/收益:			
Exchange differences on translation of foreign operations	換算海外業務之匯兌差異		(532,085)	414,616
OTHER COMPREHENSIVE (LOSS)/INCOME FOR THE YEAR, NET OF TAX	本年度其他全面(虧損)/收益，扣除稅項		(532,085)	414,616
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	本年度全面收益總額		4,660,983	675,648

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME *(continued)*

綜合損益及其他全面收益表 (續)

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

		Notes 附註	2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Profit/(loss) for the year attributable to:	應佔本年度溢利/(虧損)：			
Owners of the parent	母公司擁有人		5,193,017	261,099
Non-controlling interests	非控股權益		51	(67)
			5,193,068	261,032
Total comprehensive income/(loss) for the year attributable to:	應佔本年度全面收益/(虧損)總額：			
Owners of the parent	母公司擁有人		4,660,932	675,715
Non-controlling interests	非控股權益		51	(67)
			4,660,983	675,648
			<i>HK cents</i> 港仙	<i>HK cents</i> 港仙
EARNINGS PER SHARE ATTRIBUTABLE TO OWNERS OF THE PARENT	母公司擁有人應佔每股盈利			
Basic	基本	11	12.32	0.62
Diluted	攤薄	11	11.62	0.60

Details of dividend are disclosed in note 10 to the consolidated financial statements. 股息之詳情於綜合財務報表附註10披露。

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

綜合財務狀況表

(As at 31 December 2018 於二零一八年十二月三十一日)

			2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
	Notes 附註			
NON-CURRENT ASSETS		非流動資產		
Property, plant and equipment	13	物業、廠房及設備	904,619	581,302
Intangible assets	14	無形資產	72,725	35,467
Available-for-sale financial investments	15	可供出售金融投資	-	66,097
Equity investments designated at fair value through other comprehensive income	15	指定為按公平值計入其他全面收益之權益投資	63,058	-
Restricted cash	22	受限制現金	18,403	4,104
Deferred tax assets	27	遞延稅項資產	30,810	-
Other non-current assets		其他非流動資產	58,971	85,471
Total non-current assets		非流動資產總額	1,148,586	772,441
CURRENT ASSETS		流動資產		
Inventories	16	存貨	2,758,652	1,689,670
Trade receivables	17	貿易應收款項	3,934,877	7,232,791
Tax recoverable		可收回稅項	2,639	2,766
Gross amount due from contract customers	18	應收合同客戶總額	-	2,400,660
Contract assets	18	合同資產	12,100,913	-
Other receivables	19	其他應收款項	4,101,976	1,437,143
Bills receivable	20	應收票據	141,350	27,363
Deposits and prepayments	21	按金及預付款項	5,500,390	3,369,336
Restricted cash	22	受限制現金	46,275	140,236
Cash and cash equivalents	22	現金及現金等價物	359,049	2,496,760
Total current assets		流動資產總額	28,946,121	18,796,725
CURRENT LIABILITIES		流動負債		
Trade and bills payables	23	貿易及票據應付款項	5,172,070	1,737,876
Other payables and accruals	24	其他應付款項及應計費用	3,959,017	7,073,562
Contract liabilities	25	合同負債	3,193,004	-
Interest-bearing bank and other borrowings	26	銀行及其他付息借款	195,837	597,610
Tax payable		應付稅項	1,895,107	1,005,374
Deferred income		遞延收入	32,637	20,447
Total current liabilities		流動負債總額	14,447,672	10,434,869
NET CURRENT ASSETS		流動資產淨額	14,498,449	8,361,856
TOTAL ASSETS LESS CURRENT LIABILITIES		資產總額減流動負債	15,647,035	9,134,297

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(continued)

綜合財務狀況表(續)

(As at 31 December 2018 於二零一八年十二月三十一日)

		Notes	2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
		附註		
NON-CURRENT LIABILITIES	非流動負債			
Deferred tax liabilities	遞延稅項負債	27	1,975,262	478,048
Interest-bearing bank and other borrowings	銀行及其他付息借款	26	490,956	528,398
Other non-current liabilities	其他非流動負債		9,440	20,049
Total non-current liabilities	非流動負債總額		2,475,658	1,026,495
Net assets	資產淨額		13,171,377	8,107,802
EQUITY	權益			
Equity attributable to the owners of the parent	母公司擁有人應佔權益			
Share capital	股本	28	105,364	105,364
Reserves	儲備	30	13,065,426	8,001,902
			13,170,790	8,107,266
Non-controlling interests	非控股權益		587	536
Total equity	權益總額		13,171,377	8,107,802

Si Haijian
司海健

Executive Director and Chief Executive Officer
執行董事兼首席執行官

Huang Songchun
黃松春

Executive Director and Financial Controller
執行董事兼財務總監

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

綜合權益變動表

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

		Attributable to owners of the parent 母公司擁有人應佔										
		Share capital	Share premium account	Capital redemption reserve	Reserve funds	Contributed surplus	Exchange reserve	Share option reserve	Accumulated losses	Sub-total	Non-controlling interests	Total
		股本	股份溢價類	資本贖回儲備	儲備金	實繳盈餘	匯兌儲備	購股權儲備	累計虧損	小計	非控股權益	總額
		HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000
		千港元	千港元	千港元	千港元	千港元	千港元	千港元	千港元	千港元	千港元	千港元
At 1 January 2017	於二零一七年一月一日	104,647	11,244,621	7,684	135,089	53,295	(606,091)	58,177	(3,657,003)	7,340,419	603	7,341,022
Profit for the year	本年度溢利	-	-	-	-	-	-	-	261,099	261,099	(67)	261,032
Other comprehensive income for the year:	本年度其他全面收益：											
Exchange differences on translation of foreign operation	從海外業務轉換之匯兌差異	-	-	-	-	-	414,616	-	-	414,616	-	414,616
Total comprehensive income for the year	本年度全面收益總額	-	-	-	-	-	414,616	-	261,099	675,715	(67)	675,648
Appropriation of reserve funds	提取儲備金	-	-	-	33,409	-	-	-	(33,409)	-	-	-
Exercise of share options (note 28(a))	行使購股權(附註28(a))	717	70,940	-	-	-	-	-	-	71,657	-	71,657
Share option expense	購股權開支	-	-	-	-	-	-	19,475	-	19,475	-	19,475
At 31 December 2017	於二零一七年十二月三十一日	105,364	11,315,561	7,684	168,498	53,295	(191,475)	77,652	(3,429,313)	8,107,266	536	8,107,802

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(continued)

綜合權益變動表(續)

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

		Attributable to owners of the parent 母公司擁有人應佔										
		Share capital	Share premium account*	Capital redemption reserve*	Reserve funds*	Contributed surplus*	Exchange reserve*	Share option reserve*	Retained profits/ (Accumulated losses)† 留存溢利/ (累計虧損)*	Sub-total	Non- controlling interests	Total
		已發行股本	股份溢價賬*	資本贖回儲備*	儲備金*	實繳盈餘*	匯兌儲備*	購股權儲備*	(累計虧損)*	小計	非控股權益	總額
		HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000
		千港元	千港元	千港元	千港元	千港元	千港元	千港元	千港元	千港元	千港元	千港元
At 31 December 2017	於二零一七年十二月三十一日	105,364	11,315,561	7,684	168,498	53,295	(191,475)	77,652	(3,429,313)	8,107,266	536	8,107,802
Effect of adoption of HKFRS 15 (note 2.2)	採納香港財務報告準則第15號之影響(附註2.2)	-	-	-	-	-	-	-	392,359	392,359	-	392,359
At 1 January 2018 (restated)	於二零一八年一月一日(重列)	105,364	11,315,561	7,684	168,498	53,295	(191,475)	77,652	(3,036,954)	8,499,625	536	8,500,161
Profit for the year	本年度溢利	-	-	-	-	-	-	-	5,193,017	5,193,017	51	5,193,068
Other comprehensive loss for the year:	本年度其他全面虧損:											
Exchange differences on translation of foreign operations	從海外業務轉換之匯兌差異	-	-	-	-	-	(532,085)	-	-	(532,085)	-	(532,085)
Total comprehensive income/(loss) for the year	本年度全面收益/(虧損)總額	-	-	-	-	-	(532,085)	-	5,193,017	4,660,932	51	4,660,983
Appropriation of reserve funds	提取儲備金	-	-	-	207,452	-	-	-	(207,452)	-	-	-
Share option expense	購股權開支	-	-	-	-	-	-	10,233	-	10,233	-	10,233
At 31 December 2018	於二零一八年十二月三十一日	105,364	11,315,561	7,684	375,950	53,295	(723,560)	87,885	1,948,611	13,170,790	587	13,171,377

* These reserve accounts comprise the consolidated reserves of HK\$13,065,426,000 (2017: HK\$8,001,902,000) in the consolidated statement of financial position

* 該等儲備賬目包括綜合財務狀況表之綜合儲備13,065,426,000港元(二零一七年: 8,001,902,000港元)。

CONSOLIDATED STATEMENT OF CASH FLOWS

綜合現金流量報表

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

	Notes 附註	2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
CASH FLOWS FROM OPERATING ACTIVITIES	經營項目現金流量		
Profit before tax:	稅前溢利：	7,570,496	446,124
Adjustments for:	調整：		
Finance costs	財務費用	7 41,849	59,339
Interest income from banks and other interest income from third parties	銀行利息收入及第三方之其他利息收入	6 (71,922)	(28,039)
Amortisation of intangible assets	無形資產攤銷	8 7,959	1,489
Depreciation of items of property, plant and equipment	物業、廠房及設備項目之折舊	8 108,279	66,548
Write-down of inventories to net realisable value	存貨撇減至可變現淨值	8 131,959	73,782
Reversal of inventories provision	存貨撥備撥回	8 (32,624)	(10,874)
Loss on disposal of items of property, plant and equipment	出售物業、廠房及設備項目之虧損	8 1,400	464
Impairment of property, plant and equipment	物業、廠房及設備減值	8 53,933	45,522
Loss on disposal of subsidiaries	出售附屬公司虧損	8 -	5,568
Impairment of trade receivables	貿易應收款項減值	8 192,701	934
Reversal of impairment of trade receivables	貿易應收款項之減值撥回	8 (54,168)	(1,399)
Reversal of impairment of other receivables	其他應收款項之減值撥回	8 (11,684)	-
Product warranty provision	產品保養撥備	8 261,609	38,468
Equity-settled share option expenses	以權益結算的股份期權開支	8 10,233	19,475
		8,210,020	717,401
(Increase)/decrease in inventories	存貨(增加)/減少	(1,315,261)	45,665
Decrease in trade receivables	貿易應收款項減少	3,195,993	71,300
Increase in contract assets/gross amount due from contract customers	合同資產/應收合同客戶總額增加	(9,683,973)	(735,958)
(Increase)/decrease in other receivables	其他應收款項(增加)/減少	(2,230,732)	18,649
Increase in bills receivable	應收票據增加	(118,684)	(15,513)
Increase in deposits and prepayments	按金及預付款項增加	(2,388,067)	(2,551,867)
Decrease/(increase) in restricted cash	受限制現金減少/(增加)	76,359	(100,738)
Increase in trade and bills payables	貿易及票據應付款項增加	3,612,497	324,499
Decrease in contract liabilities	合同負債減少	(2,046,844)	-
Increase in other payables and accruals	其他應付款項及應計費用增加	2,059,005	4,682,584
Cash (used in)/generated from operations	經營項目(使用)/產生之現金	(629,687)	2,456,022
Income taxes paid	已付所得稅	(109,280)	(76,218)
Interest paid to banks and third parties	已付銀行及第三方之利息	(56,959)	(44,465)
NET CASH FLOWS (USED IN)/FROM OPERATING ACTIVITIES	經營項目(使用)/產生之現金流量淨額	(795,926)	2,335,339

CONSOLIDATED STATEMENT OF CASH FLOWS (continued)

綜合現金流量報表 (續)

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

	Notes 附註	2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
CASH FLOWS FROM INVESTING ACTIVITIES	投資項目現金流量		
Purchases of available-for-sale financial investments	增購可供出售金融投資	-	(4,056)
Purchase of items of property, plant and equipment	增購物業、廠房及設備項目	(397,346)	(99,307)
Purchase of intangible assets	增購無形資產	(50,336)	(6,103)
Acquisition of a subsidiary	收購一間附屬公司	-	(17,586)
Disposal of a subsidiary	出售一間附屬公司	-	9,011
Proceeds from disposal of items of property, plant and equipment	出售物業、廠房及設備項目之所得款項	2,735	5,838
Interest received	已收利息	65,752	25,286
Proceeds from disposal of intangible assets	出售無形資產之所得款項	-	1,983
Purchase of financial products	增購金融產品	(855,969)	(179,445)
Redemption of financial products	贖回金融產品	297,877	106,471
NET CASH FLOWS USED IN INVESTING ACTIVITIES	投資活動使用之現金流量淨額	(937,287)	(157,908)

CONSOLIDATED STATEMENT OF CASH FLOWS (continued)

綜合現金流量報表 (續)

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

	Notes 附註	2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
CASH FLOWS FROM FINANCING ACTIVITIES	融資活動現金流量		
Advance (to)/from Hanergy Holding	漢能控股之(借款)/墊款	(1,180)	1,184
Advance (to)/from related parties	關聯人士之(借款)/墊款	(10,701)	30,130
Proceeds from interest-bearing bank borrowings	銀行付息借款之所得款項	57,064	53,050
Repayment of interest-bearing bank borrowings	償還銀行付息借款	(63,147)	(68,619)
Proceeds from other borrowings due to related parties	結欠關聯人士之其他借款之所得款項	548	49,673
Repayment of other borrowings due to related parties	償還結欠關聯人士之其他借款	(523,309)	(4,116)
Proceeds from other borrowings due to unrelated third parties	結欠無關聯第三方之其他借款之所得款項	199,560	199,153
Repayment of other borrowings due to unrelated third parties	償還結欠無關聯第三方之其他借款	(88,600)	(177,762)
Proceeds from issue of shares upon exercise of share options	於行使購股權後發行股份之所得款項	-	71,657
NET CASH FLOWS (USED IN)/FROM FINANCING ACTIVITIES	融資項目(使用)/產生之現金流量淨額	(429,765)	154,350
NET (DECREASE)/INCREASE IN CASH AND CASH EQUIVALENTS	現金及現金等價物之(減少)/增加淨額	(2,162,978)	2,331,781
Cash and cash equivalents at beginning of the year	年初之現金及現金等價物	2,496,760	248,674
Effect of foreign exchange rate changes, net	外幣匯率變動之影響，淨額	25,267	(83,695)
CASH AND CASH EQUIVALENTS AT END OF THE YEAR	年終之現金及現金等價物	359,049	2,496,760
ANALYSIS OF BALANCES OF CASH AND CASH EQUIVALENTS	現金及現金等價物結餘之分析		
Cash and cash equivalents as stated in the consolidated statement of financial position and consolidated statement of cash flows	於綜合財務狀況表及綜合現金流量表列賬之現金及現金等價物	22	2,496,760

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

1. CORPORATE AND GROUP INFORMATION

Hanergy Thin Film Power Group Limited (the “Company”) is an exempted company with limited liability incorporated in Bermuda. The address of its registered office is Clarendon House, 2 Church Street, Hamilton HM11, Bermuda and its principal place of business is located at Room 2204-06, 22/F, World Trade Centre, 280 Gloucester Road, Causeway Bay, Hong Kong.

During the year, the Company and its subsidiaries (collectively referred to as the “Group”) were principally involved in (i) the construction of turnkey production lines for the manufacture of amorphous silicon and Copper Indium Gallium Selenide (“CIGS”) based thin-film power modules (**Manufacturing**); (ii) the technological development and production of Gallium Arsenide (“GaAs”) thin-film power turnkey production lines (**Manufacturing**); (iii) building ground-mounted power stations or rooftop power stations for sale and sale of thin-film power modules (**Downstream**); (iv) the research, development and sale of thin-film power application products (**Downstream**); (v) sale of electricity (**Downstream**); and (vi) providing engineering services (**Downstream**).

The Company’s shares are listed on the main board of The Stock Exchange of Hong Kong Limited (the “Stock Exchange”). The Group’s current operations are principally based in Hong Kong, the People’s Republic of China (the “PRC” or “Mainland China”), the Kingdom of Sweden (“Sweden”), the Federal Republic of Germany (“Germany”), the United States of America (the “United States”), and the United Kingdom of Great Britain and Northern Ireland (the “United Kingdom”).

1. 公司及集團資料

漢能薄膜發電集團有限公司(「本公司」)於百慕達註冊成立為獲豁免有限公司。其註冊辦事處地址為Clarendon House, 2 Church Street, Hamilton HM11, Bermuda，其主要營業地點位於香港銅鑼灣告士打道280號世貿中心22樓2204-06室。

本公司及其附屬公司(統稱「本集團」)，年內主要從事(i)建設矽基及銅銦鎵硒(「CIGS」)薄膜太陽能光伏組件製造用整套生產線(「製造」); (ii)砷化鎵(「GaAs」)薄膜發電整套生產線技術開發及生產(「製造」); (iii)建造太陽能地面電站和屋頂電站以供銷售並銷售薄膜組件(「下游」); (iv)研究、開發及銷售薄膜發電應用產品(「下游」); (v)銷售電力(「下游」); 及(vi)提供工程服務(「下游」)。

本公司股份於香港聯合交易所有限公司(「聯交所」)主板上市。本集團現時以香港、中華人民共和國(「中國」或「中國內地」)、瑞典王國(「瑞典」)、德意志聯邦共和國(「德國」)、美利堅合眾國(「美國」)及大不列顛及北愛爾蘭聯合王國(「英國」)為主要營運基地。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

1. CORPORATE AND GROUP INFORMATION *(continued)*

On 20 May 2015, the stock price of the Company plunged 47% to HK\$3.91 per share from HK\$7.38 per share before a suspension was announced by the Company on that day. Then on 15 July 2015, the Securities and Futures Commission (“SFC”) directed the Stock Exchange to extend the trading suspension. As at the date of approval of these consolidated financial statements, the trading of stock of the Company is still suspended.

In October 2018, the Company has received a proposal from Hanergy Mobile Energy Holdings Co., Ltd. (“Hanergy Mobile”), the intermediate holding company of the Company, in relation to privatization of shares of the Company. On 26 February 2019, Hanergy Mobile and the Company jointly announced a proposal on the privatization. By then, Hanergy Mobile held 20,320,245,121 shares of the Company which represent approximately 48.21% of the issued share capital of the Company. Pursuant to the proposal, all the shares held by the original independent shareholders (“Scheme Shares”) will be cancelled and, in consideration thereof, the original independent shareholders will be entitled to receive one Special Purpose Vehicle (“SPV”) Share for each of the Scheme Shares in replacement. There will not be any cash payment by Hanergy Mobile and/or its concert parties during the privatization process. A SPV will be established in a jurisdiction outside the PRC with all issued SPV Shares held by Hanergy Mobile and to facilitate the future listing on a stock exchange in the PRC. The implementation of the proposal will be effective subject to fulfillment of certain conditions. As at the date of approval of these consolidated financial statements, there is no progress of the aforementioned privatization.

1. 公司及集團資料(續)

於二零一五年五月二十日，在本公司於同日宣佈暫停買賣前，本公司股價由每股7.38港元下挫47%至每股3.91港元。於二零一五年七月十五日，證券及期貨事務監察委員會(「證監會」)指令聯交所延長買賣停牌。於此等綜合財務報表之批准日期，本公司股票買賣仍然暫停。

於二零一八年十月，本公司收到本公司中間控股公司漢能移動能源控股集團有限公司(「漢能移動能源」)之建議，內容有關本公司股份私有化。於二零一九年二月二十六日，漢能移動能源與本公司共同宣佈私有化建議。彼時，漢能移動能源擁有本公司20,320,245,121股股份，佔本公司已發行股本約48.21%。根據建議，原獨立股東所持有的所有股份(「計劃股份」)將取消，而作為代價，原股東將有權就每股計劃股份獲得一股特殊目的公司(「特殊目的公司」)股份的替換。私有化過程中，漢能移動能源及／或其一致行動方不會做出任何現金支付。一間特殊目的公司將於中國境外成立，所有已發行特殊目的公司股份由漢能移動能源持有，以方便將來於中國的證券交易所上市。建議之落實須待達成若干條件後方可有效。截至批准該等綜合財務報表日期，上述私有化並無進展。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

1. CORPORATE AND GROUP INFORMATION *(continued)*

As of 31 December 2018, the immediate holding company of the Company is Hanergy Investment Limited (“Hanergy Investment”), which was incorporated in the British Virgin Islands (“BVI”) and the ultimate holding company of the Company is 漢能光伏科技有限公司 (“Hanergy Photovoltaic”), which was established in the PRC. Both the immediate holding company and the ultimate holding company of the Company are ultimately controlled by Mr. Li Hejun. In the opinion of the directors, the ultimate controlling person of the Company is Mr. Li Hejun, who holds 73.86% of the issued share capital of the Company.

1. 公司及集團資料(續)

於二零一八年十二月三十一日，本公司之直接控股公司為於英屬處女群島（「英屬處女群島」）註冊成立之 Hanergy Investment Limited（「Hanergy Investment」），而本公司之最終控股公司為於中國成立之漢能光伏科技有限公司（「漢能光伏」）。本公司之直接控股公司及最終控股公司均由李河君先生最終控制。董事認為，本公司之最終控制人士為李河君先生，其持有本公司已發行股本之73.86%。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

1. CORPORATE AND GROUP INFORMATION (continued)

Information about subsidiaries

Details of the Group's principal subsidiaries are as follows:

Name 名稱	Place of incorporation/ registration and business 註冊成立/登記及 業務地點	Issued ordinary/ registered share capital/ paid in capital 已發行普通/註冊股本/ 實收資本	Percentage of equity attributable to the Group 本集團應佔權益百分比		Principal activities 主要業務
			2018 二零一八年	2017 二零一七年	
Hanergy Hi-Tech Power International Limited* 漢能高科技能源國際股份有限公司*	BVI 英屬處女群島	Ordinary US\$1,000 普通股1,000美元	100%	100%	Investment holding 投資控股
Hanergy Hi-Tech Power (HK) Limited 漢能高科技能源(香港)股份有限公司	Hong Kong 香港	Ordinary US\$77,218,880 普通股77,218,880美元	100%	100%	Investment holding and trading of equipment and turnkey production lines 投資控股及買賣設備及整套生產線
Apollo Precision (Fujian) Ltd.# 福建鉑陽精工設備有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB148,087,820 註冊資本人民幣148,087,820元	100%	100%	Construction of turnkey production lines 建設整套生產線
Apollo Precision (Beijing) Ltd.# 北京精誠鉑陽光電設備有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB50,000,000 註冊資本人民幣50,000,000元	100%	100%	Construction of turnkey production lines 建設整套生產線
Apollo Precision (Kunming) Yuanlong Limited# 昆明鉑陽遠通光伏設備有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB30,790,918 註冊資本人民幣30,790,918元	100%	100%	Construction of turnkey production lines 建設整套生產線
Apollo Precision (Kunming) Yuanhong Limited# 昆明鉑陽遠宏能源科技有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB20,000,000 註冊資本人民幣20,000,000元	100%	100%	Technical services of turnkey production lines 整套生產線的技術服務
Hanergy Global Solar Power Group Limited* 漢能國際光伏發電集團有限公司*	BVI 英屬處女群島	Ordinary US\$5,000,000 普通股5,000,000美元	100%	100%	Investment holding 投資控股
HGSG-NA Land Power 1, LLC	The United States 美國	Registered US\$50,000 註冊資本50,000美元	100%	100%	Investment holding 投資控股
Huaibei Qingyuan New Energy Development Limited# 淮北清源新能源開發有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB25,000,000 註冊資本人民幣25,000,000元	100%	100%	Solar power station 太陽能電站
Shizong Qingyuan New Energy Development Limited# 師宗清源新能源開發有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB60,000,000 註冊資本人民幣60,000,000元	100%	100%	Solar power station 太陽能電站
Miasole Equipment Integration (Fujian) Limited# 米亞索樂裝備集成(福建)有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB50,000,000 註冊資本人民幣50,000,000元	100%	100%	Construction of turnkey production lines 建設整套生產線

1. 公司及集團資料(續)

附屬公司之資料

本集團主要附屬公司詳情如下：

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

1. CORPORATE AND GROUP INFORMATION (continued)

Information about subsidiaries (continued)

Details of the Group's principal subsidiaries are as follows: (continued)

Name 名稱	Place of incorporation/ registration and business 註冊成立/登記及 業務地點	Issued ordinary/ registered share capital/ paid in capital 已發行普通/註冊股本/ 實收資本	Percentage of equity attributable to the Group 本集團應佔權益百分比		Principal activities 主要業務
			2018 二零一八年	2017 二零一七年	
Hanergy Equipment Technology Group Co., Ltd. [#] 漢能裝備科技集團有限公司	The PRC/ Mainland China 中國/中國內地	Registered USD 1,069,640,000 註冊資本1,069,640,000美元	100%	100%	Investment holding 投資控股
Xinjiang Hanergy Thin Film Solar Power Investment Limited [#] 新疆漢能薄膜太陽能投資有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB200,000,000 註冊資本人民幣 200,000,000元	100%	100%	Investment holding 投資控股
Solibro Research AB	Sweden 瑞典	Paid in SEK170,395,229 實收資本170,395,229 瑞典克朗	100%	100%	Provision of research and development service 提供研究及開發服務
Guangdong Hanergy New Energy Investment Co., Ltd. [#] 廣東漢能新能源發電投資有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB300,000,000 註冊資本人民幣 300,000,000元	100%	100%	Investment holding 投資控股
Beijing Hanergy Household Thin Film Power Technology Co., Ltd. [#] 北京漢能戶用薄膜發電科技有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB470,000,000 註冊資本人民幣 470,000,000元	100%	100%	Sale of rooftop power stations 銷售屋頂電站
Shanghai Hanergy Thin-Film Power Co., Ltd. [#] 上海漢能薄膜發電有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB50,000,000 註冊資本人民幣 50,000,000元	100%	100%	Sale of rooftop power stations 銷售屋頂電站
Sichuan Hanergy Thin-Film Power Co., Ltd. [#] 四川漢能薄膜發電有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB60,000,000 註冊資本人民幣 60,000,000元	100%	100%	Sale of rooftop power stations 銷售屋頂電站
Hubei Hanergy Huazhong Thin-Film Power Co., Ltd. [#] 湖北漢能華中薄膜發電有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB50,000,000 註冊資本人民幣 50,000,000元	100%	100%	Sale of rooftop power station 銷售屋頂電站
Liaoning Hanergy Thin-Film Power Co., Ltd. [#] 遼寧漢能薄膜發電有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB100,000,000 註冊資本人民幣 100,000,000元	100%	100%	Sale of rooftop power station 銷售屋頂電站
Guangdong Hanergy Thin-Film Power Investment and Development Co., Ltd. [#] 廣東漢能薄膜發電投資發展有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB600,000,000 註冊資本人民幣 600,000,000元	100%	100%	Investment holding 投資控股
Juntai Innovation Beijing Technology Ltd. [#] 君泰創新(北京)科技有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB1,500,000,000 註冊資本人民幣 1,500,000,000元	100%	100%	Construction of turnkey production lines 建設整套生產線

1. 公司及集團資料(續)

附屬公司之資料(續)

本集團主要附屬公司詳情如下:(續)

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

1. CORPORATE AND GROUP INFORMATION (continued)

Information about subsidiaries (continued)

Details of the Group's principal subsidiaries are as follows: (continued)

Name 名稱	Place of incorporation/ registration and business 註冊成立/登記及 業務地點	Issued ordinary/ registered share capital/ paid in capital 已發行普通/註冊股本/ 實收資本	Percentage of equity attributable to the Group 本集團應佔權益百分比		Principal activities 主要業務
			2018 二零一八年	2017 二零一七年	
Solibro Hi-Tech GmbH	Germany 德國	Paid in EUR25,000 實收資本25,000歐元	100%	100%	Construction of turnkey production lines 建設整套生產線
Hanergy Thin Film Power Application Group Ltd.* 漢能薄膜發電應用集團有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB210,000,000 註冊資本人民幣 210,000,000元	100%	100%	Investment holding 投資控股
Beijing Hanergy Thin Film Power Investment Ltd.* 北京漢能薄膜發電投資有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB60,000,000 註冊資本人民幣 60,000,000元	100%	100%	Construction of turnkey production lines 建設整套生產線
Beijing Hanergy Solar Investment Co., Ltd.* 北京漢能光伏投資有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB3,000,000,000 註冊資本人民幣 3,000,000,000元	100%	100%	Construction of turnkey production lines 建設整套生產線
MiaSole Hi-Tech Corp.	The United States 美國	Paid in US\$152,314,366 實收資本152,314,366美元	100%	100%	Manufacture of PV products and equipment 製造光伏產品及設備
Global Solar Energy, Inc.	The United States 美國	Paid in US\$36,368,156 實收資本36,368,156美元	100%	100%	Manufacture of PV products and equipment 製造光伏產品及設備
Savanna Solar Limited	Ghana 加納	Registered GHC400,000 註冊資本400,000加納賽地	70%	70%	Construction of PV power generation projects 建設光伏發電項目
Guangzhou Qiguang Solar Energy Technology Co. Ltd* 廣州啟光太陽能科技有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB57,000,000 註冊資本人民幣57,000,000元	100%	100%	Provision of technology and marketing and application service 提供技術、營銷及應用服務
Alta Devices, Inc.	The United States 美國	Paid in US\$148,310,328 實收資本148,310,328美元	100%	100%	Provision of research and development service 提供研究及開發服務
Beijing Hanergy Thin Film Power Electrical Engineering Limited* 北京漢能薄膜太陽能電力工程 有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB150,000,000 註冊資本人民幣 150,000,000元	100%	100%	Engineering service 工程服務
Fuhai Hanergy Hengyuan Thin Film Power Limited* 福海漢能恒源薄膜發電有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB100,000,000 註冊資本人民幣 100,000,000元	100%	100%	Solar power station 太陽能電站

1. 公司及集團資料(續)

附屬公司之資料(續)

本集團主要附屬公司詳情如下:(續)

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

1. CORPORATE AND GROUP INFORMATION (continued)

Information about subsidiaries (continued)

Details of the Group's principal subsidiaries are as follows: (continued)

Name 名稱	Place of incorporation/ registration and business 註冊成立/登記及 業務地點	Issued ordinary/ registered share capital/ paid in capital 已發行普通/註冊股本/ 實收資本	Percentage of equity attributable to the Group 本集團應佔權益百分比		Principal activities 主要業務
			2018 二零一八年	2017 二零一七年	
Guizhou Hanergy Equipment Technology Co., Ltd. [#] 貴州漢能裝備科技有限公司	The PRC/ Mainland China 中國/中國內地	Registered US\$100,000,000 註冊資本100,000,000美元	100%	100%	Construction of turnkey production lines 建設整套生產線
Guizhou Miasole Equipment Technology Co., Ltd. 貴州米亞索樂裝備科技有限公司	The PRC/Mainland China 中國/中國內地	Registered US\$100,000,000 註冊資本100,000,000美元	100%	100%	Construction of turnkey production lines 建設整套生產線
Beijing Xinjun New Energy Technology Ltd. [#] 北京信君新能源科技有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB10,000,000 註冊資本人民幣 10,000,000元	100%	100%	Investment holding 投資控股
Shanxi Miasole Equipment Technology Co., Ltd. [#] 山西米亞索樂裝備科技有限公司	The PRC/Mainland China 中國/中國內地	Registered RMB1,000,000,000 註冊資本人民幣1,000,000,000元	100%	100%	Construction of turnkey production lines 建設整套生產線
Jiangsu Yancheng Gelaobao Equipment Technology Co., Ltd. [#] 江蘇鹽城格萊寶裝備科技有限公司	The PRC/Mainland China 中國/中國內地	Registered RMB500,000,000 註冊資本人民幣500,000,000元	100%	100%	Construction of turnkey production lines 建設整套生產線
Chuangxin Energy Technology (Fujian Pingtan) Co., Ltd. [#] 創昕能源科技(福建平潭)有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB50,000,000 註冊資本人民幣50,000,000元	100%	100%	Construction of turnkey production lines 建設整套生產線
Fujian Juntai Energy Technology Co., Ltd. [#] 福建君泰能源科技有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB50,000,000 註冊資本人民幣50,000,000元	100%	100%	Technical services of turnkey production lines 整套生產線的技術服務
Jiangsu Hanjia Thin Film Solar Power Technology Ltd. [#] 江蘇漢嘉薄膜太陽能科技有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB50,000,000 註冊資本人民幣50,000,000元	100%	100%	Sale of application products 銷售應用產品
Hanergy Thin Film Solar Power Investment (Beijing) Ltd. [#] 漢能薄膜太陽能投資(北京)有限公司	The PRC/ Mainland China 中國/中國內地	Registered RMB300,000,000 註冊資本人民幣300,000,000元	100%	100%	Investment holding 投資控股
Qinghai Hanergy Financing Lease Ltd. [#] 青海漢能融資租賃有限公司	The PRC/ Mainland China 中國/中國內地	Registered US\$30,000,000 註冊資本美元30,000,000元	100%	100%	Finance Leasing 融資租賃
Zhong Heng Neng Finance Lease (Tianjin) Ltd. [#] 中恒能融資租賃投資(天津)有限公司	The PRC/ Mainland China 中國/中國內地	Registered US\$30,000,000 註冊資本美元30,000,000元	100%	100%	Finance Leasing 融資租賃

1. 公司及集團資料(續)

附屬公司之資料(續)

本集團主要附屬公司詳情如下:(續)

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

1. CORPORATE AND GROUP INFORMATION *(continued)*

Information about subsidiaries *(continued)*

Details of the Group's principal subsidiaries are as follows: *(continued)*

- * Direct subsidiaries of the Company.
- # Unofficial English translations for identification purpose only.

The above table lists out the subsidiaries of the Company which, in the opinion of the directors, principally affected the results for the year or formed a substantial portion of the net assets of the Group. To give details of other subsidiaries would, in the opinion of the directors, result in particulars of excessive length.

2.1 BASIS OF PREPARATION

These financial statements have been prepared in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") (which include all Hong Kong Financial Reporting Standards, Hong Kong Accounting Standards ("HKASs") and Interpretations) issued by the Hong Kong Institute of Certified Public Accountants (the "HKICPA"), accounting principles generally accepted in Hong Kong and the applicable disclosure requirements of the Hong Kong Companies Ordinance.

As at 31 December 2018, the Group had cash and cash equivalents of HK\$359,049,000 and its current assets were in excess of current liabilities by HK\$14,498,449,000 which, as set out in notes 17 and 18 to the consolidated financial statements included trade receivables and contract assets with a total amount of HK\$16,035,790,000.

1. 公司及集團資料 *(續)*

附屬公司之資料 *(續)*

本集團主要附屬公司詳情如下：*(續)*

- * 本公司之直接附屬公司。
- # 非正式英文翻譯，僅供識別。

上表列出董事認為主要影響本年度業績或構成本集團重大資產淨值部分之附屬公司。董事認為，提供其他附屬公司之詳情會令篇幅過於冗長。

2.1 編製基準

此等財務報表乃根據香港會計師公會（「香港會計師公會」）頒佈之香港財務報告準則（「香港財務報告準則」，包括所有香港財務報告準則、香港會計準則（「香港會計準則」）及詮釋）、香港公認會計原則及香港公司條例之適用披露規定而編製。

於二零一八年十二月三十一日，本集團有現金及現金等價物359,049,000港元，而流動資產比流動負債超出14,498,449,000港元（見綜合財務報表附註17及18），流動資產包括貿易應收款項及合同資產總額合共16,035,790,000港元。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.1 BASIS OF PREPARATION (continued)

The directors of the Company are considering measures to monitor and improve the cash flows of the Group, including but not limited to the collection of trade receivables due from its customers and to obtain adequate external financing to support its working capital and meet its obligations and commitments when they become due.

The Group has carried out a review of its cash flow forecast for the twelve months ending 31 December 2019. Based on such forecast, the directors believe that adequate sources of liquidity exist to fund the Group's working capital and capital expenditure requirements, and to meet its short term debt obligations and other liabilities and commitments as they become due in the twelve months ending 31 December 2019. In preparing the cash flow forecast, management has considered historical cash requirements of the Group, as well as other key factors, including anticipated cash collection from its customers and the external financing to be obtained in the twelve months ending 31 December 2019.

In light of the measures of the Group described above, the directors of the Company are of the view that the Group will have sufficient working capital to finance its operations and is able to meet with its liabilities as and when they fall due in the foreseeable future. Accordingly, the directors of the Company consider that it is appropriate to prepare these financial statements on a going concern basis.

2.1 編製基準(續)

本公司董事現正考慮監察及改善本集團現金流量之措施，其包括但不限於收回客戶之貿易應收款項及獲取足夠的外部融資以支持其營運資金並於到期時履行責任及承諾。

本集團已審閱其截至二零一九年十二月三十一日止十二個月之現金流量預測。根據該預測，董事認為本集團擁有足夠流動性資源滿足其營運資金及資本開支要求，且當短期債務責任及其他負債及承諾於截至二零一九年十二月三十一日止十二個月到期時能夠履行該等責任。於編製現金流量預測時，管理層已考慮本集團之過往現金要求及其他主要因素，包括截至二零一九年十二月三十一日止十二個月的預期客戶現金收回及可獲取的外部融資。

鑑於上述本集團措施，本公司董事認為本集團將有足夠營運資金為其營運撥資，並可應付可見將來之到期負債。故此，本公司董事認為該等財務報表以持續經營基準編製乃屬恰當。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.1 BASIS OF PREPARATION (continued)

Comparative information

Certain comparative amounts as at 31 December 2017 have been reclassified to conform with the current year's presentation.

Basis of consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries for the year ended 31 December 2018.

A subsidiary is an entity (including a structured entity), directly or indirectly, controlled by the Company. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee (i.e., existing rights that give the Group the current ability to direct the relevant activities of the investee).

When the Company has, directly or indirectly, less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- (a) the contractual arrangement with the other vote holders of the investee;
- (b) rights arising from other contractual arrangements; and
- (c) the Group's voting rights and potential voting rights.

2.1 編製基準(續)

比較資料

若干於二零一七年十二月三十一日之比較金額已重新分類以符合本年度之呈列方式。

綜合基準

綜合財務報表包括本公司及其附屬公司截至二零一八年十二月三十一日止年度之財務報表。

附屬公司乃本公司直接或間接控制之實體(包括結構實體)。倘本集團因參與被投資方業務而承擔浮動回報之風險或享有權利，並能夠使用其對被投資方之權力影響其回報(即現有權利可使本集團能於當時指揮權利被投資方之相關活動)，則本集團擁有該實體之控制權。

倘本公司直接或間接於被投資方之投票權或類似權利未能佔大多數，則本集團於評估其是否對被投資方擁有權力時考慮所有相關事實及情況，包括：

- (a) 與被投資方之其他投票權持有人之合同安排；
- (b) 其他合同安排產生之權利；及
- (c) 本集團之投票權及潛在投票權。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.1 BASIS OF PREPARATION (continued)

Basis of consolidation (continued)

The financial statements of the subsidiaries are prepared for the same reporting period as the Company, using consistent accounting policies. The results of subsidiaries are consolidated from the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases.

Profit or loss and each component of other comprehensive income are attributed to the owners of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

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 described above. A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognises (i) the assets (including goodwill) and liabilities of the subsidiary, (ii) the carrying amount of any non-controlling interest and (iii) the cumulative translation differences recorded in equity; and recognises (i) the fair value of the consideration received, (ii) the fair value of any investment retained and (iii) any resulting surplus or deficit in profit or loss. The Group's share of components previously recognised in other comprehensive income is reclassified to profit or loss or retained profits, as appropriate, on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

2.1 編製基準(續)

綜合基準(續)

附屬公司與本公司之財務報表的報告期間相同，並採用一致會計政策編製。附屬公司之業績由本集團取得控制權之日起計綜合入賬，並繼續綜合入賬至該等控制權終止之日為止。

損益表及其他全面收益之各部分乃本集團母公司擁有人及非控股權益所應佔，即使於非控股權益之權益為赤字。所有集團內與集團成員之間之交易有關的資產及負債、股權、收益、開支及現金流在綜合時已抵銷。

如果有事實和情況顯示，有關如上所述的三項控制元素中，有其中一項或多項出現改變，本集團會重新評估被投資者是否受控制。於附屬公司之擁有權益有變而未有失去控制者，將按股份交易入賬。

若本集團失去一間附屬公司的控制權，彼會終止確認(i)該附屬公司的資產(包括商譽)及負債、(ii)任何非控股權益的賬面值，及(iii)權益所錄得的累計匯兌差額；及確認(i)所收取代價的公平值、(ii)所保留任何投資的公平值及(iii)損益產生的任何虧絀盈餘。若本集團直接處置相關資產或負債，本集團所分佔先前於其他全部收益部分乃按所規定的相同基準重新分類至損益或保留溢利(如適用)確認。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

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

Amendments to HKFRS 2	<i>Classification and Measurement of Share-based Payment Transactions</i>
Amendments to HKFRS 4	<i>Applying HKFRS 9 Financial Instruments with HKFRS 4 Insurance Contracts</i>
HKFRS 9	<i>Financial Instruments</i>
HKFRS 15	<i>Revenue from Contracts with Customers</i>
Amendments to HKFRS 15	<i>Clarification to HKFRS 15 Revenue from Contracts with Customers</i>
Amendments to HKAS 40	<i>Transfers to Investment Property</i>
HK(IFRIC)-Int 22	<i>Foreign Currency Translation and Advance Consideration</i>

Annual Improvements 2014-2016 Cycle Amendments to HKFRS 1 and HKAS 28

Other than as explained below regarding the impact of HKFRS 9, HKFRS 15 and Amendments to HKFRS 15, the adoption of the above revised standards has had no significant financial effect on these financial statements.

2.2 會計政策及披露之變動

本集團於本年度的財務報表首次採納下列新訂及經修訂香港財務報告準則：

香港財務報告準則第2號之修訂本	以股份支付之交易分類及計量
香港財務報告準則第4號之修訂本	與香港財務報告準則第4號保險合約一併應用香港財務報告準則第9號金融工具
香港財務報告準則第9號	金融工具
香港財務報告準則第15號	來自客戶合約之收益
香港財務報告準則第15號之修訂本	澄清香港財務報告準則第15號來自客戶合約之收益
香港會計準則第40號之修訂本	轉撥投資物業
香港（國際財務報告詮釋委員會）－詮釋第22號	外幣交易及預付代價
二零一四年至二零一六年週期之年度改進	香港財務報告準則第1號及香港會計準則第28號之修訂本

除下文闡釋有關香港財務報告準則第9號、香港財務報告準則第15號及香港財務報告準則第15號之修訂本之影響外，採納上述經修訂準則對財務報表並無重大財務影響。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

The nature and the impact of the new HKFRSs are described below:

(a) HKFRS 9 *Financial Instruments*

HKFRS 9 *Financial Instruments* replaces HKAS 39 *Financial Instruments: Recognition and Measurement* for annual periods beginning on or after 1 January 2018, bringing together all three aspects of the accounting for financial instruments: classification and measurement, impairment and hedge accounting.

(1) Classification and measurement

The following information sets out the impacts of adopting HKFRS 9 on the statement of financial position, including the effect of replacing HKAS 39's incurred credit loss calculations with HKFRS 9's expected credit losses ("ECLs").

2.2 會計政策及披露之變動(續)

新財務報告準則變動之性質及影響闡述如下：

(a) 香港財務報告準則第9號金融工具

香港財務報告準則第9號金融工具取代香港會計準則第39號金融工具：確認及計量，於二零一八年一月一日或之後開始之年度期間，匯集金融工具入賬之全部三個方面，即分類及計量、減值及對沖會計。

(1) 分類及計量

以下資料載列採納香港財務報告準則第9號對財務狀況表之影響，包括以香港財務報告準則第9號預期信貸虧損取代香港會計準則第39號已產生信貸虧損計算的影響。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(a) HKFRS 9 *Financial Instruments* (continued)

(1) Classification and measurement (continued)

A reconciliation between the carrying amounts under HKAS 39 and the balances reported under HKFRS 9 as at 1 January 2018 is as follows:

2.2 會計政策及披露之變動(續)

(a) 香港財務報告準則第9號金融工具(續)

(1) 分類及計量(續)

於二零一八年一月一日，香港會計準則第39號項下賬面值及香港財務報告準則第9號項下所呈報結餘之對賬如下：

		Notes 附註	HKAS 39 measurement 香港會計準則第39號之計量			HKFRS 9 measurement 香港財務報告準則第9號之計量		
			Category 類別	Amount 金額 HK\$'000 千港元	Reclassification 重新分類 HK\$'000 千港元	ECL 預期信貸虧損 HK\$'000 千港元	Amount 金額 HK\$'000 千港元	Category 類別
Financial assets	金融資產							
Equity investments designated at fair value through other comprehensive income	指定為按公平值計入其他全面收益之股權投資		N/A 不適用	-	66,097	-	66,097	FVOCI ¹ (權益) (equity)
From: Available-for-sale financial investments	自：可供出售金融投資	(i)			66,097	-		
Available-for-sale financial investments	可供出售金融投資		AFS ²	66,097	(66,097)	-	-	N/A 不適用
To: Equity investments designated at fair value through other comprehensive income	至：指定為按公平值計入其他全面收益之股權投資	(i)			(66,097)	-		
Trade receivables	貿易應收款項	(ii)	L&R ³	7,456,821	-	-	7,456,821	AC ⁴

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(a) HKFRS 9 Financial Instruments (continued)

(1) Classification and measurement (continued)

		Notes 附註	HKAS 39 measurement 香港會計準則第39號之計量			HKFRS 9 measurement 香港財務報告準則第9號之計量		
			Category 類別	Amount 金額 HK\$'000 千港元	Reclassification 重新分類 HK\$'000 千港元	ECL 預期信貸虧損 HK\$'000 千港元	Amount 金額 HK\$'000 千港元	Category 類別
Financial assets included in other receivables and deposits	計入其他應收款項及按金之金融資產		L&R	1,506,548	(321,791)	-	1,184,757	AC
To: Financial assets at fair value through other comprehensive income	至：按公平值計入其他全面收益之金融資產	(iii)			(321,791)	-	-	N/A
Bills receivable	應收票據		L&R	27,363	(27,363)	-		
To: Financial assets at fair value through other comprehensive income	至：按公平值計入其他全面收益之金融資產	(iii)			(27,363)	-		
Financial assets at fair value through other comprehensive income	按公平值計入其他全面收益之金融資產		N/A 不適用	-	349,154	-	349,154	FVOCI
From: Financial assets included in other receivables and deposits	自：計入其他應收款項及按金之金融資產	(iii)			321,791	-		
From: Bills receivable	自：應收票據	(iii)			27,363	-		
Restricted cash	受限制現金		L&R	144,340	-	-	144,340	AC
Cash and cash equivalents	現金及現金等價物		L&R	2,496,760	-	-	2,496,760	AC
				11,697,929	-	-	11,697,929	
Other assets	其他資產							
Contract assets	合同資產	(ii)		2,819,524	-	-	2,819,524	
Total assets	資產總額			20,212,060	-	-	20,212,060	

2.2 會計政策及披露之變動 (續)

(a) 香港財務報告準則第9號金融工具 (續)

(1) 分類及計量 (續)

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(a) HKFRS 9 *Financial Instruments* (continued)

(1) Classification and measurement (continued)

		Notes 附註	HKAS 39 measurement 香港會計準則第39號之計量			HKFRS 9 measurement 香港財務報告準則第9號之計量		
			Category 類別	Amount 金額 HK\$'000 千港元	Reclassification 重新分類 HK\$'000 千港元	ECL 預期信貸虧損 HK\$'000 千港元	Amount 金額 HK\$'000 千港元	Category 類別
Financial liabilities	金融負債							
Trade and bills payables	貿易及票據應付款項		AC	1,737,876	-	-	1,737,876	AC
Financial liabilities included in other payables and accruals	計入其他應付款項及應計費用之金融負債	(ii)	AC	832,516	-	-	832,516	AC
Interest-bearing bank and other borrowings	銀行及其他附息借款		AC	1,126,008	-	-	1,126,008	AC
Other non-current liabilities	其他非流動負債		AC	20,049	-	-	20,049	AC
				3,716,449	-	-	3,716,449	
Other liabilities	其他負債							
Deferred tax liabilities	遞延稅項負債	(ii)		609,733	-	-	609,733	
Total liabilities	負債總額			11,711,899	-	-	11,711,899	

¹ FVOCI: Financial assets at fair value through other comprehensive income

² AFS: Available-for-sale financial investments

³ L&R: Loans and receivables

⁴ AC: Financial assets or financial liabilities at amortised cost

2.2 會計政策及披露之變動(續)

(a) 香港財務報告準則第9號金融工具(續)

(1) 分類及計量(續)

¹ FVOCI: 按公平值計入其他全面收益計量之金融資產

² AFS: 可供出售金融投資

³ L&R: 貸款及應收款項

⁴ AC: 按攤銷成本計算之金融資產或金融負債

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(a) HKFRS 9 *Financial Instruments* (continued)

(1) Classification and measurement (continued)

Notes:

(i) This category only includes equity instruments, which the Group intends to hold for the foreseeable future and which the Group has elected the option to irrevocably classify upon initial recognition or transition. The Group classified its unquoted equity instruments as equity instruments at FVOCI with no recycling of gains or losses to profit or loss on derecognition. Equity instruments at FVOCI are not subject to an impairment assessment under HKFRS 9. Under HKAS 39, the Group's unquoted equity instruments were classified as available-for-sale financial investments and measured at cost less impairment losses. The reclassification is because these investments are held as long-term strategic investments that are not expected to be sold in the short to medium term. Since these investees were still under construction phase without any operation since the Group has invested in, therefore their fair values approximate to their costs as at 1 January 2018 without any fair value changes being recognised as at 1 January 2018.

(ii) The gross carrying amounts of the trade receivables, contract assets, financial liabilities included in other payables and accruals and the deferred tax liabilities under the column "HKAS 39 measurement – Amount" represent the amounts after adjustments for the adoption of HKFRS 15 but before the measurement of ECLs. Further details of the adjustments for the adoption of HKFRS 15 are included in note 2.2(b) to the financial statements.

2.2 會計政策及披露之變動(續)

(a) 香港財務報告準則第9號金融工具(續)

(1) 分類及計量(續)

附註：

(i) 此分類僅包括本集團擬為可見將來持有及於初始確認或過渡後本集團已選擇不可撤回地分類之權益工具。本集團將其無報價權益工具分類為按公平值計入其他全面收益之權益工具，於終止確認時並不會回撥收益或虧損至損益。按公平值計入其他全面收益之權益工具毋須根據香港財務報告準則第9號作出減值評估。根據香港會計準則第39號，本集團之無報價權益工具已分類為可供出售金融投資及按成本減去減值虧損計量。重新分類之原因是該等投資乃持作長期策略投資及預期不會於中短期內出售。由於該等被投資方自本集團作出投資以來仍在建設階段及並無營運，故其公平值與其於二零一八年一月一日之成本相若，且於二零一八年一月一日並無確認任何公平值變動。

(ii) 根據「香港會計準則第39號計量—金額」(指因採納香港財務報告準則第15號而調整後但於計量預期信貸虧損之前之金額)項下之貿易應收款項、合同資產、計入其他應付款項及應計費用之金融負債以及遞延稅項負債之賬面總值。有關香港財務報告準則第15號之重大調整之進一步詳情載於財務報表附註2.2(b)。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(a) HKFRS 9 *Financial Instruments* (continued)

(1) Classification and measurement (continued)

Notes: (continued)

- (iii) These are debt instruments at FVOCI with recycling of gains or losses to profit or loss on derecognition. This category includes bills receivable and other receivables due from a third party with a business model whose objective is achieved by both collecting contractual cash flows until the bills and other receivables are matured and selling financial assets with endorsement to suppliers in order to settle the trade payables due by the Group or redeem the receivables before it is matured that meet the SPPI criterion.

(2) Impairment

HKFRS 9 requires an impairment on trade receivables, contract assets, other receivables and bills receivable that are not accounted for at fair value through profit or loss under HKFRS 9, to be recorded based on an expected credit loss model either on a twelve-month basis or a lifetime basis. The Group applied the simplified approach and recorded lifetime expected credit losses on its trade receivables and contract assets. The Group applied general approach and recorded twelve-month expected credit losses on its other receivables and bills receivables. The adoption of HKFRS 9 has had no significant impact on the impairment of the financial assets of the Group.

2.2 會計政策及披露之變動(續)

(a) 香港財務報告準則第9號金融工具(續)

(1) 分類及計量(續)

附註：(續)

- (iii) 按公平值計入其他全面收益之債務工具，於終止確認時會回撥收益或虧損至損益。此類別包括第三方欠負之應收票據及其他應收款項，其業務模式之目標乃通過收取合同現金流量直至票據及其他應收款項到期以及在供應商背書下出售金融資產，以結算本集團應付之貿易應付款項或於到期前贖回符合SPPI準則之應收款項。

(2) 減值

香港財務報告準則第9號規定須就並非根據香港財務報告準則第9號按公平值計入損益入賬之貿易應收款項、合同資產、其他應收款項及應收票據作出減值，而有關減值按十二個月或年期之預期信貸虧損入賬。本集團就其貿易應收款項及合同資產應用簡易方法及按年期預期虧損入賬。本集團就其其他應收款及應收票據應用一般方法及按十二個月預期信貸虧損入賬。採納香港財務報告準則第9號對本集團之金融資產減值並無重大影響。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(b) HKFRS 15 *Revenue from Contracts with Customers*

HKFRS 15 and its amendments replace HKAS 11 *Construction Contracts*, HKAS 18 *Revenue* and related interpretations and it applies, with limited exceptions, to all revenue arising from contracts with customers. HKFRS 15 establishes a five-step model to account for revenue arising from contracts with customers. Under HKFRS 15, revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. The principles in HKFRS 15 provide a more structured approach for measuring and recognizing revenue. The standards also introduces extensive qualitative and quantitative disclosure requirements, including disaggregation of total revenue, information about performance obligations, changes in contract asset and liability account balances between periods and key judgements and estimates. The disclosures are included in notes 3 and 5 to the financial statements. As a result of the application of HKFRS 15, the Group has changed the accounting policy with respect to revenue recognition in note 2.4 to the financial statements.

The Group has adopted HKFRS 15 using the modified retrospective method of adoption. Under this method, the standard can be applied either to all contracts at the date of initial application or only to contracts that are not completed at this date. The Group has elected to apply the standard to contracts that are not completed as at 1 January 2018.

2.2 會計政策及披露之變動(續)

(b) 香港財務報告準則第15號來自客戶合約的收益

香港財務報告準則第15號及其修訂取代香港會計準則第11號*建設合同*、香港會計準則第18號*收入*及相關詮釋，並(除少數例外情況外)適用於所有與客戶簽訂合同之收入。香港財務報告準則第15號建立一個五步模式，將與客戶簽訂合同之收入入賬。根據香港財務報告準則第15號，收入按反映實體預期就轉讓貨品或服務予客戶可得代價之金額確認。香港財務報告準則第15號的原則為計量及確認收入提供更加結構化的方法。該準則亦引入廣泛的定性及定量披露規定，包括分拆總收入，關於履行責任、不同期間之合同資產及負債賬目結餘的變動以及主要判斷及估計的資料。披露資料載於財務報表附註3及5。由於應用香港財務報告準則第15號，本集團已就收入確認更改財務報表附註2.4內之會計政策。

本集團採納香港財務報告準則第15號時採用經修訂追溯法。根據此方法，該項準則適用於初始應用日期之所有合同或僅適用於當日尚未完成之合同。本集團選擇將該項準則應用於截至二零一八年一月一日尚未完成之合同。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(b) HKFRS 15 Revenue from Contracts with Customers (continued)

The cumulative effects of the initial application of HKFRS 15 was recognised as an adjustment to the opening balance of accumulated losses at 1 January 2018. Therefore, the comparative information was not restated and continues to be reported under HKAS 11, HKAS 18 and related interpretations.

Set out below are the amounts by which each financial statement line item was affected as at 1 January 2018 as a result of the adoption of HKFRS 15:

2.2 會計政策及披露之變動(續)

(b) 香港財務報告準則第15號來自客戶合約的收益(續)

有關初次應用香港財務報告準則第15號之累計影響確認為對累計虧損於二零一八年一月一日的期初結餘所作出的調整。因此，比較資料並無重列，仍根據香港會計準則第11號、香港會計準則第18號及相關詮釋規定呈報。

下表所載為採納香港財務報告準則第15號對於二零一八年一月一日之各財務報表項目有影響之金額：

		Notes 附註	Increase/ (decrease) 增加/(減少) HK\$'000 千港元
Assets	資產		
Trade receivables	貿易應收款項	(1a)	224,030
Contract assets	合同資產	(1a), (4)	2,819,524
Gross amount due from contract customers	應收合同客戶總額	(1a), (4)	(2,400,660)
Total assets	資產總額		642,894
Liabilities	負債		
Contract liabilities	合同負債	(3)	5,239,848
Other payables and accruals	其他應付款項及應計費用	(1a), (3)	(5,120,998)
Deferred tax liabilities	遞延稅項負債	(1a)	131,685
Total liabilities	負債總額		250,535
Equity	權益		
Accumulated losses	累計虧損	(1a)	(392,359)

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(b) HKFRS 15 Revenue from Contracts with Customers (continued)

Set out below are the amounts by which each financial statement line item was affected as at 31 December 2018 and for the year ended 31 December 2018 as a result of the adoption of HKFRS 15. The adoption of HKFRS 15 has had no impact on other comprehensive income or on the Group's operating, investing and financing cash flows. The first column shows amounts recorded under HKFRS 15 and the second column shows what the amounts would have been had HKFRS 15 not been adopted:

Effects on the consolidated statement of profit or loss and other comprehensive income for the year ended 31 December 2018:

2.2 會計政策及披露之變動(續)

(b) 香港財務報告準則第15號來自客戶合約的收益(續)

下表所載為採納香港財務報告準則第15號對於二零一八年十二月三十一日及截至二零一八年十二月三十一日止年度之各財務報表項目有影響之金額。採納香港財務報告準則第15號對其他全面收益或本集團之經營、投資及融資現金流量並無影響。第一欄所示為根據香港財務報告準則第15號錄得之金額，第二欄所示為尚未採納香港財務報告準則第15號時之金額：

對截至二零一八年十二月三十一日止年度綜合損益及其他全面收益表之影響：

		Amounts prepared under 根據以下準則編製之金額			
		HKFRS 15 香港財務 報告準則 第15號	Previous HKFRS 過往香港財 務報告準則	Increase/ (decrease) 增加/ (減少)	
		HK\$'000 千港元	HK\$'000 千港元	HK\$'000 千港元	
	Notes 附註				
Revenue from contracts with customers	與客戶簽訂合同之收入	(1a)	21,251,772	20,849,315	402,457
Gross profit	毛利		12,122,362	11,719,905	402,457
Selling and distribution expenses	銷售及分銷費用	(1a)	(854,160)	(666,448)	187,712
Profit before tax	稅前溢利		7,570,496	7,355,751	214,745
Income tax expense	所得稅支出	(1a)	(2,377,428)	(2,344,274)	33,154
Profit for the year	本年度溢利		5,193,068	5,011,477	181,591
			HK Cents 港仙	HK Cents 港仙	Increase/ (decrease) 增加/ (減少)
EARNINGS PER SHARE ATTRIBUTABLE TO OWNERS OF THE PARENT		母公司擁有人應佔每股盈利			
Basic	基本		12.32	11.89	0.43
Diluted	攤薄		11.62	11.22	0.40

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(b) HKFRS 15 Revenue from Contracts with Customers (continued)

Effect on the consolidated statement of financial positions as at 31 December 2018:

		Amounts prepared under 根據以下準則編製之金額			
		Notes	HKFRS 15 香港財務 報告準則 第15號 HK\$'000 千港元	Previous HKFRS 過往香港財 務報告準則 HK\$'000 千港元	Increase/ (decrease) 增加/ (減少) HK\$'000 千港元
Trade receivables	貿易應收款項	(1a), (4)	3,934,877	3,695,878	238,999
Gross amount due from contract customers	應收合同客戶總額	(1a), (4)	-	11,937,455	(11,937,455)
Contract assets	合同資產	(1a)	12,100,913	-	12,100,913
Total assets	資產總額		30,094,707	29,692,250	402,457
Contract liabilities	合同負債	(3)	3,193,004	-	3,193,004
Other payable and accruals	其他應付款項及 應計費用	(1a), (3)	3,959,017	6,964,309	(3,005,292)
Deferred tax liabilities	遞延稅項負債	(1a)	1,975,262	1,942,108	33,154
Total liabilities	負債總額		16,923,330	16,702,464	220,866
Net assets	資產淨額		13,171,377	12,989,786	181,591
Retained profits	留存溢利	(1a)	1,948,611	1,767,020	181,591
Total equity	權益總額		13,171,377	12,989,786	181,591

The nature of the adjustments as at 1 January 2018 and the reasons for the changes in the statement of financial position as at 31 December 2018 and the statement of profit or loss and other comprehensive income for the year ended 31 December 2018 are described below:

2.2 會計政策及披露之變動(續)

(b) 香港財務報告準則第15號來自客戶合約的收益(續)

對於二零一八年十二月三十一日綜合財務狀況表之影響：

Amounts prepared under
根據以下準則編製之金額

Notes	HKFRS 15 香港財務 報告準則 第15號 HK\$'000 千港元	Previous HKFRS 過往香港財 務報告準則 HK\$'000 千港元	Increase/ (decrease) 增加/ (減少) HK\$'000 千港元
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於二零一八年一月一日之調整性質及於二零一八年十二月三十一日財務狀況表變動之原因以及截至二零一八年十二月三十一日止年度之損益及其他全面收益表描述如下：

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(b) HKFRS 15 *Revenue from Contracts with Customers* (continued)

(1) Revenue recognition

Revenue is recognised when or as the control of the asset is transferred to the customer. Depending on the terms of the contract and the laws that apply to the contract, control of the asset may be transferred over time or at a point in time. Control of the asset is transferred over time if the Group's performance:

- provides all of the benefits received and consumed simultaneously by the customer;
- creates and enhances an asset that the customer controls as the Group performs; or
- do 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.

If control of the asset transfers over time, revenue is recognised over the period of the contract by reference to the progress towards complete satisfaction of that performance obligation. Otherwise, revenue is recognised at a point in time when the customer obtains control of the asset.

The progress towards complete satisfaction of the performance obligation is measured based on the Group's efforts or inputs to the satisfaction of the performance obligation, by reference to the contract costs incurred up to the end of reporting period as a percentage of total estimated costs for each contract.

2.2 會計政策及披露之變動(續)

(b) 香港財務報告準則第15號來自客戶合約的收益(續)

(1) 收入確認

收入於資產的控制權轉移至客戶時確認。視乎合同條款及適用於合同的法律，資產之控制權可能隨時間或於某一時點轉移。倘本集團的履約符合以下條件，則資產的控制權隨時間轉移：

- 當客戶同時接獲及消耗本集團履約時提供之所有利益；
- 當本集團履約時創造及提升由客戶控制之資產；或
- 當本集團履約所創造的資產並無為本集團提供其他用途及本集團擁有可強制執行權利收取迄今已完成履約之款項。

倘資產的控制權於一段時間內轉移，則收入按完成履行有關履約責任之進度於合同期間確認。否則，收入於客戶取得資產控制權之時點確認。

完成履行履約責任之進度按本集團為履行履約責任之支出或投入，參照每份合同截至報告期末已產生合同成本佔該合同總估計成本之百分比計量。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(b) HKFRS 15 Revenue from Contracts with Customers (continued)

(1) Revenue recognition (continued)

(a) Accounting for revenue from construction contracts

The Group conducted several construction contracts both in Manufacturing segment to deliver turnkey production lines for the manufacturing of thin-film solar photovoltaic modules and in Downstream segment to construct a series of solar power stations for certain small to medium-sized enterprises and poverty alleviation projects.

Prior to the adoption of HKFRS 15, revenue from fixed price construction contracts is recognised using the percentage of completion method, measured by reference to the proportion of costs incurred to date to the estimated total cost of the relevant contract.

Upon adoption of HKFRS 15, the Group's performance creates or enhances an asset or work in progress that the customer controls as the asset is created or enhanced, thus the Group satisfies a performance obligation and continue to recognise revenue over time, by reference to completion of the specific transaction assessed on the basis of the actual costs incurred up to the end of the reporting period as a percentage of total estimated costs for each contract. The adoption of HKFRS 15 has had the following impact on the opening accumulated losses as at 1 January 2018:

2.2 會計政策及披露之變動(續)

(b) 香港財務報告準則第15號來自客戶合約的收益(續)

(1) 收入確認(續)

(a) 與客戶簽訂建設合同之收入的入賬

本集團分別就製造分部及下游分部進行多份施工合同，以分別就製造並交付薄膜太陽能光伏組件製造用整套生產線及為若干中小企業製造一系列太陽能電站以及扶貧項目。

於採納香港財務報告準則第15號前，固定價格建設合同之收入乃使用完工百分比法確認，並參考直至該日已產生之成本佔有關合同之估計總成本之比例計量。

採納香港財務報告準則第15號後，本集團之履約創造或提升於有關資產獲創造或提升時由客戶控制之資產或在建工程，故此，本集團於一段時間內履行履約責任及參照特定交易之完成情況(按每份合同截至報告期末已產生成本佔該合同總估計成本之百分比評估)繼續隨時間確認收入。採納香港財務報告準則第15號對於二零一八年一月一日之期初累計虧損有以下影響：

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(b) HKFRS 15 Revenue from Contracts with Customers (continued)

(1) Revenue recognition (continued)

(a) Accounting for revenue from construction contracts (continued)

2.2 會計政策及披露之變動(續)

(b) 香港財務報告準則第15號來自客戶合約的收益(續)

(1) 收入確認(續)

(a) 與客戶簽訂建設合同之收入的入賬(續)

		Accumulated losses 累計虧損 HK\$'000 千港元
Closing balance as at 31 December 2017	於二零一七年十二月三十一日之期末結餘	(3,429,313)
Adjustment from adoption of HKFRS 15 on 1 January 2018 (note)	自二零一八年一月一日起採納香港財務報告準則第15號之調整(附註)	392,359
Opening balance as of 1 January 2018	於二零一八年一月一日之期初結餘	(3,036,954)

Note:

The adjustment was arising from 1) the change of accounting for assurance type warranties for the construction of turnkey production lines which are previously accounted for as part of the total estimated budget costs under HKAS 11, whereas now are accounted for as deferred liabilities to be recorded in other payables according to HKAS 37 *Provisions, Contingent Liabilities and Contingent Assets*, and 2) the change of accounting for uninstalled materials for the construction of turnkey production lines which was previously accounted for as contract costs and included in the calculation of the percentage of completion, however now was excluded from the measurement of progress and was recognised as revenue to the extent of actual costs incurred for the uninstalled materials with no corresponding profit to be recognised. It is on the basis that the costs incurred for these uninstalled materials are not proportionate to the Group's progress in satisfying the performance obligation.

附註:

有關調整乃由於1) 建設整套生產線之保證保養入賬有所變動，根據香港會計準則第11號，保證保養先前按估計預算成本總額之一部分入賬，而根據香港會計準則第37號撥備、或然負債及或然資產，其現時按遞延負債於其他應付款項入賬；及2) 建設整套生產線之未安裝材料之入賬有所變動，未安裝材料先前合同成本按完成百分比方法入賬，惟現時並無計入進度計量中，且按未安裝材料產生之實際成本入賬為收入及不會確認相關溢利。其基準為該等未安裝材料產生之成本與本集團履行責任的進度成比例。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(b) HKFRS 15 Revenue from Contracts with Customers (continued)

(1) Revenue recognition (continued)

(a) Accounting for revenue from construction contracts (continued)

Note: (continued)

Besides the abovementioned changes arising from adoption of HKFRS 15, the Group provides service type warranties to customers that are distinct in the turnkey production line construction contracts. The customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group provides such kind of service type warranties and thus revenue is to be recognised over time upon rendering of such kind of services. The Group determines to measure the progress of such stand-ready service type warranties according to actual costs incurred and if no cost incurred during the warranty period then the service type warranties will be recognised as revenue at the time upon the maturity of the warranty period rather than straight-line basis since the estimated service type warranties are minimal to the total contract amount of the turnkey production line construction in overall. The adoption of HKFRS 15 has had no impact on the Group's revenue recognition for the service type warranties that are separated from the turnkey production lines construction.

2.2 會計政策及披露之變動(續)

(b) 香港財務報告準則第15號來自客戶合約的收益(續)

(1) 收入確認(續)

(a) 與客戶簽訂建設合同之收入的入賬(續)

附註：(續)

除因採納香港財務報告準則第15號所致之上述變動外，本集團專於整套生產線建設合同上向客戶提供服務類保養。本集團提供該類型服務類保養時，客戶同時取得並耗用本集團履約所提供之利益，故此，收入乃於提供該類型服務之一段時間內予以確認。本集團決定將該時候命服務類保養之過程，按所產生之實際成本計量，倘於保養期內並無產生成本，則該服務類保養將於保養期屆滿時確認為收入，而非按直線基準確認，因為估計服務類保養整體上相對於整套生產線建設之合同金額總額乃屬微不足道。採納香港財務報告準則第15號對確認本集團就服務類保養之收入（與整套生產線建設之收入分開）並無影響。

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(b) HKFRS 15 *Revenue from Contracts with Customers* (continued)

(1) Revenue recognition (continued)

(b) Sale of goods

The Group's sale of goods include sales of solar PV panels and PV application products.

The Group's contracts with customer for the sale of goods generally include one performance obligation.

Under HKFRS 15, revenue is recognised at the point in time when control of the asset is transferred to the customer, generally on delivery of the goods. The adoption of HKFRS 15 has had no impact on the Group's revenue recognition for sale of goods.

(c) Sales to distributors

The Group sells rooftop solar power systems through distributors.

Under HKFRS 15, the Group assesses there are two distinct performance obligations for the sales to distributors: (i) sale of rooftop solar power systems is recognised at the point in time when control of the rooftop solar power systems have been transferred to the customers, generally upon the delivery of these systems; (ii) installation service is recognised as revenue upon completion of the installation considering the installation period is very short and limited within 3 to 10 days. The adoption of HKFRS 15 has had no impact on the Group's revenue recognition for sales to distributors.

2.2 會計政策及披露之變動(續)

(b) 香港財務報告準則第15號來自客戶合約的收益(續)

(1) 收入確認(續)

(b) 銷售貨品

本集團所銷售貨品包括銷售太陽能光電板及光伏應用產品。

本集團有關銷售貨品之客戶合同一般包括一項履約責任。

根據香港財務報告準則第15號，收入於資產控制權轉移至客戶(一般為交付貨品時)之時點確認。採納香港財務報告準則第15號對本集團確認銷售貨品之收益並無影響。

(c) 銷售予經銷商

本集團透過經銷商銷售屋頂太陽能系統。

根據香港財務報告準則第15號，本集團評估就銷售予經銷商存有兩項不同之履約責任：(i)屋頂太陽能系統之銷售於屋頂太陽能系統之控制權轉移至客戶之時點(一般為交付該等系統時)確認；(ii)安裝服務於完成安裝服務之時點確認收入，因考慮到安裝時間非常短，以三至十天為限所致。採納香港財務報告準則第15號對本集團確認銷售予經銷商之收益並無影響。

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2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(b) HKFRS 15 Revenue from Contracts with Customers (continued)

(1) Revenue recognition (continued)

(d) Sale of electricity

Under HKFRS 15, revenue from sale of electricity is recognised at the point in time upon transmission of electricity to the electricity purchasing companies or provincial grid companies. The adoption of HKFRS 15 has had no impact on the Group's revenue recognition for sale of electricity.

(2) Significant financing component

Generally, the Group receives short-term advances from its customers including both the turnkey production line construction contract customers and downstream distributors. Using the practical expedient in HKFRS 15, the Group does not adjust the promised amount of consideration for the effects of a significant financing component if it expects, at contract inception, that the period between the transfer of the promised good or service to the customer and when the customer pays for that good or service will be one year or less.

Meanwhile, when the Group constructs turnkey production lines for its customers, revenue is recognised over time with corresponding contract assets and trade receivables being recognised. The Group expects that full collection can be obtained from the customers within one year or less when the corresponding revenue is recognised for the turnkey production line construction contracts, and therefore, using the practical expedient in HKFRS 15, no significant financing component involving in the Group's execution of construction contracts is recognised.

2.2 會計政策及披露之變動(續)

(b) 香港財務報告準則第15號來自客戶合約的收益(續)

(1) 收入確認(續)

(d) 銷售電力

根據香港財務報告準則第15號，銷售電力之收入於傳輸電力予購買電力公司或省級電網公司之時點確認。採納香港財務報告準則第15號對本集團確認銷售電力之收益確認並無影響。

(2) 重大融資成分

一般而言，本集團客戶短期應收預付款包括整套生產線建設合同客戶及下游經銷商。使用香港財務報告準則第15號之實際權宜之計，倘於達成合同時預期將所承諾商品或服務轉讓予客戶，以及客戶就該商品或服務付款，中間為時將於一年或以下，則本集團無需就重大融資成分之影響調整代價中之所承諾金額。

與此同時，倘本集團為其客戶建設整套生產線，收入乃於相應合同資產及應收貿易款項獲確認之一段時間內予以確認。本集團預期，待整套生產線建設合同之相應收入獲確認後，可於一年或以下時間內向客戶收取全額款項，因此，已使用香港財務報告準則第15號之實際權宜之計，不確認本集團實行建設合同時所涉及之重大融資成分。

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2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(b) HKFRS 15 Revenue from Contracts with Customers (continued)

(3) Advances received from customers

Prior to the adoption of HKFRS 15, the Group presented advances from customers in connection with the Group's turnkey production line construction contracts and downstream distributors under other payables and accruals in the consolidated statement of financial position.

Upon adoption of HKFRS 15, reclassifications have been made from other payables and accruals to contract liabilities for the outstanding balance of advances from customers. Advances from customers of HK\$5,239,848,000 that previously classified under other payables and accruals has been reclassified to contract liabilities as at 1 January 2018.

(4) Gross amount due from contract customers

Prior to the adoption of HKFRS 15, where contract costs incurred to date plus recognized profits less recognized losses exceed progress billings, the surplus is treated as an amount due from contract customers. The Group's gross amount due from contract customers for contract work was related to the Group's construction of turnkey production lines, construction of solar power stations for certain small to medium-sized enterprises and poverty alleviation projects.

Upon adoption of HKFRS 15, reclassifications have been made from gross amount due from contract customers to contract assets. Gross amount due from contract customers of HK\$2,400,660,000 has been reclassified to contract assets as at 1 January 2018.

2.2 會計政策及披露之變動(續)

(b) 香港財務報告準則第15號來自客戶合約的收益(續)

(3) 客戶預付款

採納香港財務報告準則第15號之前，本集團於綜合財務狀況表之其他應付款項及應計費用下呈列有關本集團整套生產線建設合同及下游經銷商之客戶預付款。

採納香港財務報告準則第15號後，已將客戶預付款之未償付結餘由其他應付款項及應計費用重新分類至合同負債。先前分類為其他應付款項及應計費用項下之客戶預付款5,239,848,000港元已重新分類至於二零一八年一月一日之合同負債。

(4) 應收客戶合同總額

採納香港財務報告準則第15號之前，倘若至該日已產生之合同成本另加已確認利潤減去已確認虧損超過進度賬單款項，則有關結餘被視為應收客戶合同工程款項。本集團應收客戶合同總額與建設若干整套生產線的客戶、為若干中小企業建設太陽能電站之合同以及扶貧項目有關。

採納香港財務報告準則第15號後，已將應收客戶合同總額重新分類至合同資產。先前分類為應收客戶合同總額2,400,660,000港元已重新分類至於二零一八年一月一日之合同資產。

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2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS

The Group has not early applied any of the new and revised HKFRSs, that have been issued but are not yet effective, in the consolidated financial statements.

Amendments to HKFRS 3	<i>Definition of a Business</i> ²
Amendments to HKFRS 9	<i>Prepayment Features with Negative Compensation</i> ¹
Amendments to HKFRS 10 and HKAS 28 (2011)	<i>Sale or Contribution of Assets between an Investor and its Associate or Joint Venture</i> ⁴
HKFRS 16	<i>Leases</i> ¹
HKFRS 17	<i>Insurance contract</i> ³
Amendments to HKAS 1 and HKAS 8	<i>Definition of Material</i> ²
Amendments to HKAS 19	<i>Plan Amendment, Curtailment or Settlement</i> ¹
Amendments to HKAS 28	<i>Long-term Interests in Associate or Joint Venture</i> ¹
HK(IFRIC)-Int 23	<i>Uncertainty over Income Tax Treatments</i> ¹
Annual Improvements 2015-2017 Cycle	<i>Amendments to HKFRS 3, HKFRS 11, HKAS 12 and HKAS 23</i> ¹

¹ Effective for annual periods beginning on or after 1 January 2019

² Effective for annual periods beginning on or after 1 January 2020

³ Effective for annual periods beginning on or after 1 January 2021

⁴ No mandatory effective date yet determined but available for adoption

2.3 已頒佈但尚未生效的香港財務報告準則

本集團並未提早於綜合財務報表內應用下列已頒佈但尚未生效之任何新訂及經修訂香港財務報告準則。

香港財務報告準則第3號之修訂本	業務之定義 ²
香港財務報告準則第9號之修訂本	具負補償之提早還款特性 ¹
香港財務報告準則第10號及香港會計準則第28號之(二零一一年)修訂本	投資者與其聯營公司或合營企業之間的資產出售或注入 ⁴
香港財務報告準則第16號	租賃 ¹
香港財務報告準則第17號	保險合約 ³
香港會計準則第1號及香港會計準則第8號之修訂本	重大之定義 ²
香港會計準則第19號之修訂本	計劃之修訂、縮減或結算 ¹
香港會計準則第28號之修訂本	於聯營公司或合營公司的長期權益 ¹
香港(國際財務報告詮釋委員會)—詮釋第23號	所得稅處理的不確定性 ¹
二零一五年至二零一七年週期之年度改進	香港財務報告準則第3號、香港財務報告準則第11號、香港會計準則第12號及香港會計準則第23號之修訂本 ¹

¹ 於二零一九年一月一日或之後開始的年度期間生效

² 於二零二零年一月一日或之後開始的年度期間生效

³ 於二零二一年一月一日或之後開始的年度期間生效

⁴ 尚未釐定強制生效日期，惟可供採納

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2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS *(continued)*

Further information about these HKFRSs that are expected to be applicable to the Group is described below.

Amendments to HKFRS 3 clarify and provide additional guidance on the definition of a business. The amendments clarify that for an integrated set of activities and assets to be considered a business, it must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output. A business can exist without including all of the inputs and processes needed to create outputs. The amendments remove the assessment of whether market participants are capable of acquiring the business and continue to produce outputs. Instead, the focus is on whether acquired inputs and acquired substantive processes together significantly contribute to the ability to create outputs. The amendments have also narrowed the definition of outputs to focus on goods or services provided to customers, investment income or other income from ordinary activities. Furthermore, the amendments provide guidance to assess whether an acquired process is substantive and introduce an optional fair value concentration test to permit a simplified assessment of whether an acquired set of activities and assets is not a business. The Group expects to adopt the amendments prospectively from 1 January 2020.

2.3 已頒佈但尚未生效的香港財務報告準則(續)

預期該等適用於本集團之香港財務報告準則之進一步資料如下。

香港財務報告準則第3號之修訂本澄清並提供有關業務定義之新增指引。該等修訂澄清，對於一整組被視為企業之活動及資產，其必須至少包括一項投入及實質性流程，且兩者相加應對創造產出之能力作出重大貢獻。業務可以存在而不一定包括創造產出所需之全部投入及流程。該等修訂剔除對市場參與者是否有能力收購業務並繼續產出之評估。相反，其重點為所收購之投入及收購之實際性流程相加能否對創造產出之能力作出重大貢獻。該等修訂還縮小了產出之定義，集中於向客戶提供之商品或服務、投資收入或普通活動之其他收入。此外，該等修訂亦提供指引，以評估所收購之流程是否具有實質性，並引入可選之公平值集中性測試，該測試可簡化評估所收購之一組活動及資產是否不屬於業務。本集團預期將自二零二零年一月一日起不予追溯地採納該等修訂。

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2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS (continued)

HKFRS 16 replaces HKAS 17 *Leases*, HK(IFRIC)-Int 4 *Determining whether an Arrangement contains a Lease*, HK(SIC)-Int 15 *Operating Leases – Incentives* and HK(SIC)-Int 27 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to recognise assets and liabilities for most leases. The standard includes two elective recognition exemptions for lessees – leases of low-value assets and short-term leases. At the commencement date of a lease, a lessee will recognise a liability to make lease payments (i.e., the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e., the right-of-use asset). The right-of-use asset is subsequently measured at cost less accumulated depreciation and any impairment losses unless the right-of-use asset meets the definition of investment property in HKAS 40, or relates to a class of property, plant and equipment to which the revaluation model is applied. The lease liability is subsequently increased to reflect the interest on the lease liability and reduced for the lease payments. Lessees will be required to separately recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset. Lessees will also be required to remeasure the lease liability upon the occurrence of certain events, such as change in the lease term and change in future lease payments resulting from a change in an index or rate used to determine those payments. Lessees will generally recognise the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset. Lessor accounting under HKFRS 16 is substantially unchanged from the accounting under HKAS 17. Lessors will continue to classify all leases using the same classification principle as in HKAS 17 and distinguish between operating leases and finance

2.3 已頒佈但尚未生效的香港財務報告準則(續)

香港財務報告準則第16號取代香港會計準則第17號「租賃」、香港(國際財務報告詮釋委員會)一 詮釋第4號「釐定安排是否包括租賃」、香港(準則詮釋委員會)一 詮釋第15號「經營租賃－優惠」及香港(準則詮釋委員會)一 詮釋第27號「評估涉及租賃法律形式交易之內容」。該準則載列確認、計量、呈列及披露租賃之原則，並要求承租人就大多數租賃確認資產及負債。該準則包括給予承租人兩項租賃確認豁免選項－低價值資產租賃及短期租賃。於租賃開始日期，承租人將確認於租賃期作出租賃付款為負債(即租賃負債)及代表可使用相關資產之權利為資產(即有使用權資產)。除非有使用權資產符合香港會計準則第40號投資物業之定義，或與適用重估模式之物業、廠房及設備類別有關，有使用權資產其後按成本減累計折舊及任何減值虧損計量。租賃負債其後會就反映租賃負債利息而增加及因租賃款項而減少。承租人將須分別確認租賃負債之利息開支及有使用權資產之折舊開支。承租人將亦須於若干事件發生時重新計量租賃負債，例如由於租賃期變更或用於釐定該等款項之一項指數或比率變更而引致未來租賃款項變更。承租人一般將重新計量租賃負債之數額確認為有使用權資產的調整。香港財務報告準則第16號大致沿用香港會計準則第17號內出租人之會計處理方法。出租人將繼續使用與香港會計準則第17號相同之分類原則對所有租賃進行分類，並將其分為經營租賃及融資租賃。香港財務報告準則第16號要求承租人及出租人作出比香港會計準則第17號詳盡之披露。承租人可選擇使用全面追溯性或經修訂追溯性之方式應用此準則。本集團將於二零一九年一月一日起採納香港財務報告準則第16號。

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2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS *(continued)*

leases. HKFRS 16 requires lessees and lessors to make more extensive disclosures than under HKAS 17. Lessees can choose to apply the standard using either a full retrospective or a modified retrospective approach. The Group will adopt HKFRS 16 from 1 January 2019. The Group plans to adopt the transitional provisions in HKFRS 16 to recognise the cumulative effect of initial adoption as an adjustment to the opening balance of retained profits at 1 January 2019 and will not restate the comparatives. In addition, the Group plans to apply the new requirements to contracts that were previously identified as leases applying HKAS 17 and measure the lease liability at the present value of the remaining lease payments, discounted using the Group's incremental borrowing rate at the date of initial application. The right-of-use asset will be measured at the amount of the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to the lease recognised in the statement of financial position immediately before the date of initial application. The Group plans to use the exemptions allowed by the standard on lease contracts whose lease terms end within 12 months as of the date of initial application. During 2018, the Group has performed a detailed assessment on the impact of adoption of HKFRS 16. The Group has estimated that right-of-use assets of HK\$2,934,750,000 and lease liabilities of HK\$2,904,750,000 will be recognised at 1 January 2019.

2.3 已頒佈但尚未生效的香港財務報告準則 (續)

本集團計劃採納香港財務報告準則第16號之過渡性條文，以將首次採納之累積影響確認為於二零一九年一月一日對保留溢利期初結餘進行調整，而不會重述比較數字。此外，本集團計劃將新規定應用於先前識別為適用於香港會計準則第17號之租賃之合同，並按剩餘租賃付款採用本集團於首次應用日期之增量借款利率折現之現值確認租賃負債。有使用權資產按租賃負債金額計量，並按緊接首次應用日期前於財務狀況表中確認之租賃相關之任何預付或累計租賃款項金額予以調整。本集團計劃於租賃期限自首次應用日期起12個月內終止之租賃合同中使用該準則所允許之豁免。於二零一八年，本集團已就採納香港財務報告準則第16號之影響進行詳細評估。本集團估計，2,934,750,000港元之有使用權資產及2,904,750,000港元租賃負債將於二零一九年一月一日確認。

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2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS (continued)

Amendments to HKAS 1 and HKAS 8 provide a new definition of material. The new definition states that information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. The amendments clarify that materiality will depend on the nature or magnitude of information. A misstatement of information is material if it could reasonably be expected to influence decisions made by the primary users. The Group expects to adopt the amendments prospectively from 1 January 2020. The amendments are not expected to have any significant impact on the Group's financial statements.

HK(IFRIC)-Int 23 addresses the accounting for income taxes (current and deferred) when tax treatments involve uncertainty that affects the application of HKAS 12 (often referred to as "uncertain tax positions"). The interpretation does not apply to taxes or levies outside the scope of HKAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments. The interpretation specifically addresses (i) whether an entity considers uncertain tax treatments separately; (ii) the assumptions an entity makes about the examination of tax treatments by taxation authorities; (iii) how an entity determines taxable profits or tax losses, tax bases, unused tax losses, unused tax credits and tax rates; and (iv) how an entity considers changes in facts and circumstances. The interpretation is to be applied retrospectively, either fully retrospectively without the use of hindsight or retrospectively with the cumulative effect of application as an adjustment to the opening equity at the date of initial application, without the restatement of comparative information. The Group expects to adopt the interpretation from 1 January 2019. The interpretation is not expected to have any significant impact on the Group's financial statements.

2.3 已頒佈但尚未生效的香港財務報告準則(續)

香港會計準則第1號及香港會計準則第8號之修訂本就重大提供新定義。新定義列明，倘遺漏、誤述或隱瞞有關資料，合理預期會影響到一般用途財務報表一手使用者以該等財務報表為基準作出之決策，該資料即屬重大。該等修訂澄清，重大與否乃視乎資料之性質或程度而定。倘按合理預期會影響到一手使用者所作出之決策，誤述資料即屬重大。本集團預期將自二零二零年一月一日起不予追溯地採納該等修訂。該等修訂預期不會對本集團之財務報表產生任何重大影響。

香港(國際財務報告詮釋委員會)— 詮釋第23號於稅務處理涉及影響香港會計準則第12號應用的不確定性(通常稱為「不確定稅務狀況」)時，處理所得稅(即期及遞延)的會計處理。該詮釋並不適用於香港會計準則第12號範圍外的稅項或徵稅，具體而言亦不包括不確定稅務處理相關之權益及處罰相關規定。該詮釋具體處理(i) 實體是否考慮分開處理不確定稅務處理；(ii) 實體對稅務機關之稅務處理檢查所作之假設；(iii) 實體如何決定應課稅溢利或稅務虧損、稅基、未動用稅務虧損、未動用稅收抵免及稅率；及(iv) 實體如何考慮事實及情況變動。毋須採納事後確認時可以全面追溯調整法採納該詮釋，或於首次採納當日對期初權益作出調整而毋須重述比較資料，在有關採納的積累影響下可以採納追溯調整法採納該詮釋。本集團預期將自二零一九年一月一日起採納該詮釋。該詮釋預期不會對本集團的財務報表產生任何重大影響。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Business combinations and goodwill

The acquisition of subsidiaries and business under common control, where applicable, has been accounted for using merger accounting method. The financial statements of the businesses under common control are prepared for the same reporting period as the Company, using consistent accounting policies.

The merger method of accounting involves incorporating the financial statement items of the combining entities or businesses in which the common control combinations occurs as if they had been combined from the date when the combining entities or businesses first came under the control of the controlling shareholder. The net assets of the combining entities or businesses are combined using the existing book values from the controlling shareholder's perspective. No amount is recognised in respect of goodwill or the excess of the acquirers' interest in the net fair value of acquirees' identifiable assets, liabilities and contingent liabilities over the cost of investment at the time of common control combination.

The consolidated statement of profit or loss and other comprehensive income include the results of each of the combining entities or businesses from the earliest date presented or since the date when the combining entities or businesses first came under common control or since their respective dates of incorporation/establishment, where this is a shorter period, regardless of the date of the common control combination. All intra-group balances, transactions, unrealised gains and losses resulting from intra-group transactions and dividends are eliminated on consolidation.

2.4 主要會計政策概要

業務合併及商譽

收購受共同控制之附屬公司及業務(倘適用)已採用合併會計法入賬。受共同控制之業務之財務報表按與本公司相同之報告期間採用一致之會計政策編製。

合併會計法涉及列入發生共同控制合併之合併實體或業務之財務報表項目，猶如該等項目自該等合併實體或業務首次受有關控權股東控制當日起已合併處理。合併實體或業務之資產淨值採用自控權股東角度之現有賬面值合併。於進行共同控制合併時，並無就商譽或就收購方於被收購公司之可識別資產、負債及或然負債之公平淨值之權益超出投資成本確認任何金額。

綜合損益及其他全面收益表包括各綜合實體或業務自所呈報之最早日期或該等綜合實體或業務首次受共同控制當日或自其各自之註冊成立/成立日期起(以較短期間者為準)之業績，不論共同控制合併之日期。集團內公司間交易所引致之結餘、交易、未變現盈虧及股息均於綜合賬目時抵銷。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Business combinations and goodwill (continued)

Business combinations, other than business combinations under common control, are accounted for using the acquisition method. The consideration transferred is measured at the acquisition date fair value which is the sum of the acquisition date fair values of assets transferred by the Group, liabilities assumed 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. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree that are present ownership interests and entitle their holders to a proportionate share of net assets in the event of liquidation at fair value or at the proportionate share of the acquiree's identifiable net assets. All other components of non-controlling interests are measured at fair value. Acquisition-related costs are expensed as incurred.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts of the acquiree.

If the business combination is achieved in stages, the previously held equity interest is remeasured at its acquisition date fair value and any resulting gain or loss is recognised in profit or loss.

2.4 主要會計政策概要(續)

業務合併及商譽(續)

業務合併(除共同控制之業務合併外)採用收購法入賬。轉讓代價以收購日期之公平值計量，乃本集團所轉讓資產之收購日期公平值、本集團自被收購方之前擁有人承擔之負債及本集團發行以交換被收購方控制權之股權之總和。就各業務合併而言，本集團選擇是否以公平值或被收購方可識別資產淨值之應佔比例，計量屬現有擁有權權益及賦予持有人權利於清盤時按比例分佔資產淨值之於被收購方之非控股權益。非控股權益之所有其他部分按公平值計量。收購相關成本於產生時支銷。

當本集團收購業務時，其根據合同條款、經濟環境及於收購日期之相關條件評估金融資產及所承擔之負債以作出適當之分類及指定。此包括將內含衍生工具的被收購公司與主合同分開。

倘業務合併分階段達成，則早前持有之被收購方股權乃按其於收購日期之公平值重新計量，而任何產生之盈虧乃於損益表內確認。

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Business combinations and goodwill (continued)

Any contingent consideration to be transferred by the acquirer is recognised at fair value at the acquisition date. Contingent consideration classified as an asset or liability is measured at fair value with changes in fair value recognised in profit or loss. Contingent consideration that is classified as equity is not remeasured and subsequent settlement is accounted for within equity.

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred, the amount recognised for non-controlling interests and any fair value of the Group's previously held equity interests in the acquiree over the identifiable net assets acquired and liabilities assumed. If the sum of this consideration and other items is lower than the fair value of the net assets acquired, the difference is, after reassessment, recognised in profit or loss as a gain on bargain purchase.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is tested for impairment annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired. The Group performs its annual impairment test of goodwill as at 31 December. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units.

2.4 主要會計政策概要(續)

業務合併及商譽(續)

由收購方將予轉讓之任何或然代價按收購日期之公平值確認。或然代價(被分類為金融工具之資產或負債，按公平值計量，公平值變動將於損益表確認。分類為權益之或然代價將不會重新計量，而其後結算會於權益內列賬。

商譽初步按成本計量，即所轉讓代價、就非控股權益確認之金額及本集團過往所持有被收購公司股本權益之任何公平值之總和超出所收購可識別淨資產及所承擔負債之淨額之差額。倘此代價及其他項目之總和低於所收購附屬公司資產淨值之公平值，則該差額於重新評估後於損益確認為議價購買收益。

於初步確認後，商譽按成本減任何累計減值虧損計量。商譽每年或於發生事件或情況變動顯示賬面值可能減值時更頻繁地進行減值測試。本集團於十二月三十一日進行年度商譽減值測試。就減值測試而言，於業務合併中收購之商譽自收購日期起分配至本集團各現金產生單位或各組現金產生單位分配，該等現金產生單位預期會受惠於合併帶來之協同效益，而不論本集團其他資產或負債有否分配至該等單位或單位組別。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Business combinations and goodwill (continued)

Impairment is determined by assessing the recoverable amount of the cash-generating unit (group of cash-generating units) to which the goodwill relates. Where the recoverable amount of the cash-generating unit (group of cash-generating units) is less than the carrying amount, an impairment loss is recognised. An impairment loss recognised for goodwill is not reversed in a subsequent period.

Where goodwill has been allocated to a cash-generating unit (or group of cash-generating units) and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on the disposal. Goodwill disposed of in these circumstances is measured based on the relative value of the operation disposed of and the portion of the cash-generating unit retained.

Fair value measurement

The Group measures its equity investments at fair value at the end of each reporting year. 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. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market for the asset or liability. The principal or the most advantageous market must be accessible by the Group. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

2.4 主要會計政策概要(續)

業務合併及商譽(續)

減值乃按評估與商譽有關之現金產生單位(現金產生單位組別)之可收回金額而釐定。倘現金產生單位(現金產生單位組別)之可收回金額低於賬面值，則確認減值虧損。已就商譽確認之減值虧損不會於其後期間撥回。

倘商譽已分配至現金產生單位(或現金產生單位組別)及所出售單位內業務之一部分，則於釐定出售事項之盈虧時，與售出業務有關之商譽計入業務賬面值。在此情況下出售之商譽，乃按售出業務與所保留現金產生單位部分之相對價值計量。

公平值計量

本集團於各報告年度未按公平值計量其權益投資。公平值為於計量日期市場參與者間於有秩序交易中出售資產所收取或轉讓負債所支付之價格。公平值計量乃基於假設出售資產或轉讓負債之交易於資產及負債之主要市場上進行，或於未有主要市場之情況下，則於資產或負債之最有利市場。主要或最有利市場必須位於本集團可到達之地方。資產或負債之公平值採用市場參與者為資產或負債定價時所用之假設計量(假設市場參與者依照彼等之最佳經濟利益行事)。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Fair value measurement (continued)

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1 – based on quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is observable, either directly or indirectly
- Level 3 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

2.4 主要會計政策概要(續)

公平值計量(續)

非金融資產之公平值計量乃經計及一名市場參與者透過使用其資產之最高及最佳用途或透過將資產出售予將使用其最高及最佳用途之另一名市場參與者而產生經濟利益之能力。

本集團採用適用於不同情況之估值方法，而其有足夠資料可供計量公平值，以盡量利用相關可觀察資料及盡量減少使用非觀察資料。

根據對整體公平值計量有重大影響之最低等級資料，於財務報表中以公平值計量或披露之所有資產及負債乃按公平值等級分類，描述如下：

- 第一級 – 根據相同資產或負債在活躍市場上之報價(未經調整)
- 第二級 – 根據直接或間接對公平值計量有重大影響之可觀察最低等級資料之估值技術
- 第三級 – 根據非可觀察資料而對公平值計量有重大影響之最低等級資料之估值技術

就經常於財務報表確認之資產及負債而言，本集團於各報告期末透過重新評估分類(根據對整體公平值計量有重大影響之最低等級資料)釐定各等級間是否出現轉移。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of non-financial assets

Where an indication of impairment exists, or when annual impairment testing for an asset is required (other than inventories, contract assets, financial assets and deferred tax assets), the asset's recoverable amount is estimated. An asset's recoverable amount is the higher of the asset's or cash-generating unit's value in use and its fair value less costs of disposal, and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets, in which case the recoverable amount is determined for the cash-generating unit to which the asset belongs.

An impairment loss is recognised only if the carrying amount of an asset exceeds its recoverable amount. 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. An impairment loss is charged to profit or loss of the statement of profit or loss and other comprehensive income in the period in which it arises in those expense categories consistent with the function of the impaired asset.

An assessment is made at the end of each reporting period as to whether there is an indication that previously recognised impairment losses may no longer exist or may have decreased. If such an indication exists, the recoverable amount is estimated. A previously recognised impairment loss of an asset other than goodwill is reversed only if there has been a change in the estimates used to determine the recoverable amount of that asset, but not to an amount higher than the carrying amount that would have been determined (net of any depreciation/amortisation) had no impairment loss been recognised for the asset in prior years. A reversal of such an impairment loss is credited to profit or loss of the consolidated statement of profit or loss and other comprehensive income in the period in which it arises.

2.4 主要會計政策概要(續)

非金融資產之減值

倘出現減值跡象，或需要對資產(存貨、合同資產、金融資產及遞延稅項資產除外)進行年度減值測試，則估計資產之可收回金額。資產之可收回金額乃按資產或現金產生單位之使用價值或其公平值扣除出售成本之較高者計算，並就個別資產釐定，除非該資產並無產生大致上獨立於其他資產或資產組別之現金流入，在此情況下，則就該資產所屬之現金產生單位釐定可收回金額。

減值虧損僅於資產賬面值超過其可收回金額時確認。在評估使用價值時，估計未來現金流量乃按稅前貼現率計算其現值，該貼現率反映目前市場對貨幣時間值之評估及該資產之特定風險。減值虧損乃在其產生期間自損益及其他全面收益表之損益與已減值資產功能相符之相關開支類別扣除。

於每個報告期末會評估有否跡象顯示過往確認之減值虧損已不再存在或有所減少。倘出現任何該等跡象，則會估計可收回金額。當用以釐定資產可收回金額之估計有變時，方會撥回先前就資產(商譽除外)確認之減值虧損，惟撥回之數額不可超過倘過往年度並無就該項資產確認減值虧損而原應釐定之賬面值(扣除任何折舊／攤銷)。撥回之減值虧損於產生期間計入綜合損益及其他全面收益表之損益。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Related parties

A party is considered to be related to the Group if:

- (a) the party is a person or a close member of that person's family and that person
 - (i) has control or joint control over the Group;
 - (ii) has significant influence over the Group; or
 - (iii) is a member of the key management personnel of the Group or of a parent of the Group;

or

- (b) the party is an entity where any of the following conditions applies:
 - (i) the entity and the Group are members of the same group;
 - (ii) one entity is an associate or joint venture of the other entity (or of a parent, subsidiary or fellow subsidiary of the other entity);
 - (iii) the entity and the Group are joint ventures of the same third party;

2.4 主要會計政策概要(續)

關聯人士

下列任何一方被視為本集團之關聯人士：

- (a) 該方為某人士或某人士之直系親屬，且該人士
 - (i) 對本集團具有控制權或共同控制權；
 - (ii) 對本集團具有重大影響力；或
 - (iii) 為本集團或其母公司之其中一名主要管理人；

或

- (b) 該方乃以下任何條件適用之實體：
 - (i) 該實體及本集團為同一集團之成員；
 - (ii) 該實體為另一實體(其他實體之母公司、附屬公司或同系附屬公司)之聯營公司或合營企業；
 - (iii) 該實體及本集團為同一第三方實體之合營企業；

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Related parties (continued)

- (b) the party is an entity where any of the following conditions applies: (continued)
 - (iv) one entity is a joint venture of a third entity and the other entity is an associate of the third entity;
 - (v) the entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group;
 - (vi) the entity is controlled or jointly controlled by a person identified in (a);
 - (vii) a person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity); and
 - (viii) the entity, or any member of a group of which it is a part, provides key management personnel services to the Group or to the parent of the Group.

Property, plant and equipment and depreciation

Property, plant and equipment, other than construction in progress, are stated at cost less accumulated depreciation and any impairment losses. The cost of an item of property, plant and equipment comprises its purchase price and any directly attributable costs of bringing the asset to its working condition and location for its intended use.

2.4 主要會計政策概要(續)

關聯人士(續)

- (b) 該方乃以下任何條件適用之實體：
(續)
 - (iv) 該實體乃第三間實體之合營企業，而另一實體為第三方實體之聯營公司；
 - (v) 該實體為本集團或本集團有關實體為僱員福利設立之退休福利計劃；
 - (vi) 該實體受(a)所述之人士控制或共同控制；
 - (vii) (a)(i)所述之人士對該實體具有重大影響力或乃該實體(或該實體之母公司)之其中一名主要管理人員；及
 - (viii) 該實體或某集團任何成員公司，乃向本集團或其母公司提供主要管理人士服務之人士。

物業、廠房及設備及折舊

除在建工程以外之物業、廠房及設備乃按成本減累計折舊及任何減值虧損入賬。物業、廠房及設備項目之成本包括其購入價以及將該項資產置於其運作狀態及地點作其擬定用途之任何直接相關成本。

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Property, plant and equipment and depreciation (continued)

Expenditure incurred after items of property, plant and equipment have been put into operation, such as repairs and maintenance, is normally charged to profit or loss of the statement of profit or loss and other comprehensive income in the period in which it is incurred. In situations where the recognition criteria are satisfied, the expenditure for a major inspection is capitalised in the carrying amount of the asset as a replacement. Where significant parts of property, plant and equipment are required to be replaced at intervals, the Group recognises such parts as individual assets with specific useful lives and depreciates them accordingly.

Depreciation is calculated on the straight-line basis to write-off the cost of each item of property, plant and equipment to its residual value over its estimated useful life. The principal annual rates used for this purpose are as follows:

Land and buildings	3% – 5%
Plant and machinery	4% – 20%
Furniture, fixtures and equipment	20% – 33%
Motor vehicles	20% – 25%
Leasehold improvements	over the shorter of lease term or 20%

Where parts of an item of property, plant and equipment have different useful lives, the cost of that item is allocated on a reasonable basis among the parts and each part is depreciated separately. Residual values, useful lives and the depreciation method are reviewed, and adjusted if appropriate, at least at each financial year end.

2.4 主要會計政策概要(續)

物業、廠房及設備及折舊(續)

物業、廠房及設備項目投入運作後所產生如維修及保養等開支，通常於產生期間自損益及其他全面收益表之損益扣除。倘符合確認標準，則有關重大檢查之開支會按該資產之賬面值資本化為重置資產。倘物業、廠房及設備之主要部分須分段重置，則本集團將該等部分確認為獨立資產，並設定特定之可使用年期及進行相應折舊。

折舊乃按直線基準將每項物業、廠房及設備之成本於其估計可使用年內撇銷至其剩餘價值。就此所採用之主要年率如下：

土地及樓宇	3% – 5%
廠房及機器	4% – 20%
傢俬、裝置及設備	20% – 33%
汽車	20% – 25%
租賃物業裝修	按租賃期限或20% (取期間較短者)

倘物業、廠房及設備項目各部分之可使用年期不同，則該項目之成本會按合理基準分配至各部分，而各部分會分別計算折舊。就至少一次剩餘價值、可使用年期及折舊方法將至少於各財政年度年結日檢討，並作出調整(如適用)。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Property, plant and equipment and depreciation (continued)

An item of property, plant and equipment including any significant part initially recognised is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss on disposal or retirement recognised in profit or loss of the statement of profit or loss and other comprehensive income in the year the asset is derecognised is the difference between the net sales proceeds and the carrying amount of the relevant asset.

Construction in progress represents plant and machinery under construction, which is stated at cost less any impairment losses, and is not depreciated. Cost comprises the direct costs of construction and installation. Construction in progress is reclassified to the appropriate category of property, plant and equipment when completed and ready for use.

Intangible assets (other than goodwill)

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is the fair value at the date of acquisition. The useful lives of intangible assets are assessed to be finite. Intangible assets with finite lives are subsequently amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at least at each financial year end.

2.4 主要會計政策概要(續)

物業、廠房及設備及折舊(續)

倘物業、廠房及設備項目(包括任何主要部分)於出售後或預期日後使用或出售該項目不會帶來經濟利益,則會終止確認有關項目。於該資產終止確認年度之損益及其他全面收益表之損益內確認之任何出售或報廢盈虧乃有關資產出售所得款項淨額與賬面值之差額。

在建工程指建設中之廠房及機器,按成本值減任何減值虧損列賬而不作折舊。成本值包括建築工程及安裝之直接成本。在建工程於落成及可供使用時重新分類為物業、廠房及設備之適當類別。

無形資產(商譽除外)

分開收購之無形資產於初步確認時按成本計量。於業務合併時收購之無形資產之成本乃收購日期之公平值。無形資產之可使用年期評估為有限。具有有限年期之無形資產其後按可使用年期攤銷,並於有跡象顯示該無形資產可能出現減值時進行減值評估。具有有限年期之無形資產之攤銷年期及攤銷方法至少於各財政年末進行檢討。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Intangible assets (other than goodwill) (continued)

Intangible assets with indefinite useful lives are tested for impairment annually either individually or at the cash-generating unit level. Such intangible assets are not amortised. The useful life of an intangible asset with an indefinite life is reviewed annually to determine whether the indefinite life assessment continues to be supportable. If not, the change in the useful life assessment from indefinite to finite is accounted for on a prospective basis.

Technology know-how

Purchased technology know-how (including general contractor licence) is stated at cost less any impairment losses and is amortised on the straight-line basis over its estimated useful life of 5 to 20 years.

Research and development costs

All research costs are charged to profit or loss of the statement of profit or loss and other comprehensive income as incurred.

Expenditure incurred on projects to develop new products is capitalised and deferred only when the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale, its intention to complete and its ability to use or sell the asset, how the asset will generate future economic benefits, the availability of resources to complete the project and the ability to measure reliably the expenditure during the development. Product development expenditure which does not meet these criteria is expensed when incurred.

2.4 主要會計政策概要(續)

無形資產(商譽除外)(續)

具有無限可使用年期之無形資產每年單獨或按現金產生單位進行減值測試。該等無形資產不予攤銷。具有無限可使用年期之無形資產的可使用年期會每年檢討，以釐定其無限可使用年期之評估是否仍然有效。如無，可使用年期評估由無限轉為有限將按前瞻性基準入賬。

技術知識

購入之技術知識(包括總承建商許可證)按成本減任何減值虧損列賬，並按直線基準於其估計可使用年期為5至20年內攤銷。

研發成本

所有研究成本於產生時自損益及其他全面收益表之損益扣除。

開發新產品項目所產生之開支只會在本集團能顯示有可行性技術完成無形資產以使其可供使用或出售、有意完成及有能力使用或出售資產、資產如何產生未來經濟利益、可否獲得完成項目所需資源及能否可靠計量開發支出時，方可撥作資本及遞延。不符合該等準則之產品開發開支乃於產生時支銷。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Leases

Leases that transfer substantially all the rewards and risks of ownership of assets to the Group, other than legal title, are accounted for as finance leases. At the inception of a finance lease, the cost of the leased asset is capitalised at the present value of the minimum lease payments and recorded together with the obligation, excluding the interest element, to reflect the purchase and financing. Assets held under capitalised finance leases, including prepaid land lease payments under finance leases, are included in property, plant and equipment, and depreciated over the shorter of the lease terms and the estimated useful lives of the assets. The finance costs of such leases are charged to profit or loss of the statement of profit or loss and other comprehensive income so as to provide a constant periodic rate of charge over the lease terms.

Assets acquired through hire purchase contracts of a financing nature are accounted for as finance leases, but are depreciated over their estimated useful lives.

Leases where substantially all the rewards and risks of ownership of assets remain with the lessor are accounted for as operating leases. Where the Group is the lessee, rentals payable under operating leases net of any incentives received from the lessor are charged to profit or loss of the statement of profit or loss and other comprehensive income on the straight-line basis over the lease terms.

Prepaid land lease payments under operating leases are initially stated at cost and subsequently recognised on the straight-line basis over the lease terms.

2.4 主要會計政策概要(續)

租賃

凡將資產擁有權(法定權利除外)之絕大部分回報與風險轉讓予本集團之租賃均列為融資租賃。融資租賃生效時，租賃資產之成本將按最低租賃付款額之現值撥充資本，並連同租賃責任(利息部分除外)入賬，以反映採購及融資。資本化融資租賃所持有之資產，包括融資租賃之預付土地租金，均列入物業、廠房及設備內，並按租賃年期或資產之估計可使用年期兩者之中孰短者計算折舊。上述租賃之財務成本自損益及其他全面收益表中之損益扣除，以於租賃年期內作出定期定額扣減。

通過融資性租購合同獲得的資產列為融資租賃，但於資產預計可使用年期內計算折舊。

資產擁有權之絕大部分回報及風險仍由出租人承擔之租賃，均入賬列為經營租賃。如本集團為承租人，根據經營租賃應付之租金在扣除自出租人收取之任何獎勵金後，按直線基準於租期內於損益及其他全面收益表之損益內扣除。

經營租賃的預付土地租金初步按成本列賬，其後按租賃年期以直線法確認。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Investments and other financial assets (policies under HKFRS 9 applicable from 1 January 2018)

Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income, and fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient of not adjusting the effect of a significant financing component, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under HKFRS 15 in accordance with the policies set out for "Revenue recognition (applicable from 1 January 2018)" below.

In order for a financial asset to be classified and measured at amortised cost or fair value through other comprehensive income, it needs to give rise to cash flows that are solely payments of principal and interest ("SPPI") on the principal amount outstanding.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

2.4 主要會計政策概要(續)

投資及其他金融資產(於二零一八年一月一日起適用之香港財務報告準則第9號編製之政策)

初步確認及計量

金融資產於初步確認時分類為其後按攤銷成本、按公平值計入其他全面收益及按公平值計入損益計量。

於初始確認時，金融資產分類取決於金融資產的合約現金流量特點及本集團管理該等金融資產的業務模式。除並未包含重大融資組成部分的貿易應收款項或本集團已實行權宜措施不作調整重大融資組成部分影響的貿易應收款項外，本集團按其公平值計量金融資產，倘金融資產並非按公平值計入損益，則另加交易成本。並未包含重大融資組成部分的貿易應收款項或本集團已實行權宜措施不作調整重大融資組成部分影響的貿易應收款項乃按根據下文「收入確認(於二零一八年一月一日起適用)」所載政策按香港財務報告準則第15號釐定的交易價計量。

金融資產需要令現金流量僅為償還本金及未償還本金利息，方可分類為按攤銷成本計量或按公平值計入其他全面收入的金融資產。

本集團管理金融資產的業務模式指本集團如何管理其金融資產以產生現金流量。業務模式釐定現金流量是否因收取合約現金流量、出售金融資產或因前述兩者而引起。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Investments and other financial assets (policies under HKFRS 9 applicable from 1 January 2018) (continued)

Initial recognition and measurement (continued)

All regular way purchases or sales of financial assets are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the marketplace.

Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

Financial assets at amortised cost (debt instruments)

This category is the most relevant to the Group. The Group measures financial assets at amortised cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows, and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

The Group's financial assets at amortised cost includes the Group's trade receivables and financial assets included in other receivables and deposit excluding other receivables due from a third party which is classified as financial assets at fair value through other comprehensive income.

2.4 主要會計政策概要(續)

投資及其他金融資產(於二零一八年一月一日起適用之香港財務報告準則第9號編製之政策)(續)

初步確認及計量(續)

所有以常規方式購置及出售金融資產於交易日期(即本集團承諾購置或出售該資產當日)確認。以常規方式購置或出售指需要於一般按規例或市場慣例設定的期限內交付資產的金融資產購置或出售。

其後計量

金融資產之其後計量視乎其分類進行，方式如下：

按攤銷成本計量金融資產(債務工具)

該類別與本集團最為相關。倘符合以下兩項條件，則本集團會按攤銷成本計量金融資產：

- 金融資產乃於以持有金融資產為目標的業務模式內持有，旨在收取合約現金流量
- 金融資產合約條款訂明於指定日期的現金流量僅可用作償還本金及未償還本金利息。

按攤銷成本計量金融資產其後使用實際利率法計量，並可予減值。倘資產終止確認、修訂或減值，則收益及虧損會於損益中確認。

本集團按攤銷成本計量的金融資產包括計入其他應收款項及存款的貿易應收款項及金融資產，但不包括應收一位第三方之其他應收款項(應分類為按公平值計入全面收益之金融資產)。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Investments and other financial assets (policies under HKFRS 9 applicable from 1 January 2018) (continued)

Subsequent measurement (continued)

Financial assets at fair value through other comprehensive income (debt instruments)

The Group measures debt instruments at fair value through other comprehensive income if both of the following conditions are met:

- The financial asset is held within a business model with the objective of both holding to collect contractual cash flows and selling, and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

For debt instruments at fair value through other comprehensive income, interest income, foreign exchange revaluation and impairment losses or reversals are recognised in the statement of profit or loss and computed in the same manner as for financial assets measured at amortised cost. The remaining fair value changes are recognised in other comprehensive income. Upon derecognition, the cumulative fair value change recognised in other comprehensive income is recycled to profit or loss.

The Group's debt instruments at fair value through other comprehensive income include bills receivable and other receivables due from a third party.

2.4 主要會計政策概要(續)

投資及其他金融資產(於二零一八年一月一日起適用之香港財務報告準則第9號編製之政策)(續)

其後計量(續)

按公平值計入其他全面收益之金融資產(債務工具)

倘符合以下兩項條件，則本集團會按公平值計量債務工具並計入其他全面收益：

- 金融資產於業務模式內持有，而持有金融資產的目的為收取合約現金流量及出售；及
- 金融資產的合約條款於指定日期產生現金流量，純粹作本金及尚未償還本金利息付款。

就按公平值計入其他全面收益之金融資產而言，利息收入、外匯重估及減值虧損或撥回乃於損益表中確認，並按與按經攤銷成本計量之金融資產相同之方式計算。其餘公平值於其他全面收益中確認。解除確認後，於其他全面收益中確認之累計公平值變動乃撥回損益中。

本集團按公平值計入其他全面收益之債務工具包括應收票據及其他應收一位第三方款項。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Investments and other financial assets (policies under HKFRS 9 applicable from 1 January 2018) (continued)

Subsequent measurement (continued)

Financial assets designated at fair value through other comprehensive income (equity instruments)

Upon initial recognition, the Group can elect to classify irrevocably its equity investments as equity instruments designated at fair value through other comprehensive income when they meet the definition of equity under HKAS 32 Financial Instruments: Presentation and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never recycled to profit or loss. Dividends are recognised as other income in the statement of profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in other comprehensive income. Equity instruments designated at fair value through other comprehensive income are not subject to impairment assessment.

The Group elected to classify irrevocably its unlisted equity investments under this category.

2.4 主要會計政策概要(續)

投資及其他金融資產(於二零一八年一月一日起適用之香港財務報告準則第9號編製之政策)(續)

其後計量(續)

指定按公平值計入其他全面收益之金融資產(權益工具)

初始確認時，本集團可選擇將符合香港會計準則第32號金融工具：呈列內股權定義且並非持作買賣之股權投資，不可撤回地歸類為指定按公平值計入其他全面收益之股權投資。分類乃按個別工具基準釐定。

該等金融資產之收益及虧損不會撥回損益中。倘已確立支付股息之權利，而與股息相關之經濟利益將流入本集團，且金額可予可靠計量，股息乃於損益中確認為其他收入，除非本集團將所得款項用作退還該金融資產之一部份成本，而在此情況下，相應收益乃於其他全面收益中入賬。指定按公平值計入其他全面收益之權益工具無須進行減值評估。

本集團選擇不可撤回地將其非上市股權投資撥入此類別。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Investments and other financial assets (policies under HKAS 39 applicable before 1 January 2018)

Initial recognition and measurement

Financial assets are classified, at initial recognition, as financial assets at fair value through profit or loss, loans and receivables and available-for-sale financial investments. When financial assets are recognised initially, they are measured at fair value plus transaction costs that are attributable to the acquisition of the financial assets, except in the case of financial assets recorded at fair value through profit or loss.

All regular way purchases and sales of financial assets are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the marketplace.

Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, such assets are subsequently measured at amortised cost using the effective interest rate method less any allowance for impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and includes fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included in other income and gains in profit or loss of the statement of profit or loss and other comprehensive income. The loss arising from impairment is recognised in profit or loss of the statement of profit or loss and other comprehensive income in finance costs for loans and in other expenses for receivables.

2.4 主要會計政策概要(續)

投資及其他金融資產(於二零一八年一月一日前適用之香港會計準則第39號編製之政策)

初步確認及計量

金融資產於初步確認時分類為按公平值計入損益之金融資產、貸款及應收款項，以及可供出售金融投資。倘金融資產乃於初步確認，其乃按公平值加收購金融資產應佔之交易成本計量，惟按公平值於損益列賬之金融資產除外。

所有以正常方式買賣之金融資產於交易日(即本集團承諾購買或出售該資產當日)予以確認。以正常方式買賣指須於市場規例或常規所定時間內交付資產之金融資產買賣。

其後計量

金融資產之其後計量視乎其分類進行，方式如下：

貸款及應收款項

貸款及應收款項為具有固定或可確定付款，但在活躍市場中無報價之非衍生金融資產。於初步計量後，該等資產其後採用實際利率法按攤銷成本減任何減值撥備計量。攤銷成本乃按收購之任何折讓或溢價計算，並包括屬實際利率必要部分之費用或成本。實際利率攤銷計入損益及其他全面收益表中損益之其他收入及收益內。減值產生之虧損於損益及其他全面收益表之損益中之財務費用(就貸款而言)及其他開支(就應收款項而言)內確認。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Investments and other financial assets (policies under HKAS 39 applicable before 1 January 2018) (continued)

Available-for-sale financial investments

Available-for-sale financial investments are non-derivative financial assets in unlisted equity investments. Equity investments classified as available for sale are those which are neither classified as held for trading nor designated as at fair value through profit or loss.

When the fair value of unlisted equity investments cannot be reliably measured because (a) the variability in the range of reasonable fair value estimates is significant for that investment or (b) the probabilities of the various estimates within the range cannot be reasonably assessed and used in estimating fair value, such investments are stated at cost less any impairment losses.

The Group evaluates whether the ability and intention to sell its available-for-sale financial assets in the near term are still appropriate. When, in rare circumstances, the Group is unable to trade these financial assets due to inactive markets, the Group may elect to reclassify these financial assets if management has the ability and intention to hold the assets for the foreseeable future or until maturity.

For a financial asset reclassified from the available-for-sale category, the fair value carrying amount at the date of reclassification becomes its new amortised cost and any previous gain or loss on that asset that has been recognised in equity is amortised to profit or loss of the statement of profit or loss and other comprehensive income over the remaining life of the investment using the effective interest rate. Any difference between the new amortised cost and the maturity amount is also amortised over the remaining life of the asset using the effective interest rate. If the asset is subsequently determined to be impaired, then the amount recorded in equity is reclassified to the statement of profit or loss.

2.4 主要會計政策概要(續)

投資及其他金融資產(於二零一八年一月一日前適用之香港會計準則第39號編製之政策)(續)

可供出售金融投資

可供出售金融投資乃於非上市股權投資中的非衍生金融資產。列為可供出售的股權投資乃既未分類為持作買賣亦未指定為按公平值於損益列賬之股權投資。

倘由於(a)估計合理公平值之差異變動範圍就該投資而言屬重大，或(b)於估計公平值時無法合理評估並利用有關範圍內各項估計發生的可能性，則有關投資按成本減任何減值虧損入賬。

本集團會評估在短期內出售可供出售金融資產的能力及意向是否仍屬適當。在罕有之情況下，當因市場不活躍而導致本集團無法買賣該等金融資產時，在管理層有能力且有意向於可見未來持有該等資產或持有該等資產至到期的情況下，本集團可選擇重新分類該等金融資產。

對於從可供出售類別重新分類之金融資產，於重新分類日期之公平值賬面值將為其新的攤銷成本，且該資產先前已於權益內確認之盈虧將使用實際利率法按投資之剩餘年限於損益或損益及其他全面收益表內攤銷。任何新攤銷成本與到期金額間之差額亦將使用實際利率法按該項資產之剩餘年限攤銷。倘該資產隨後釐定為減值，則權益內計入之金額將重新分類至損益表。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Derecognition of financial assets (policies under HKFRS 9 applicable from 1 January 2018 and policies under HKAS 39 applicable before 1 January 2018)

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Group's consolidated statement of financial position) when:

- the rights to receive cash flows from the asset have expired; or
- the Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass-through" arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if and to what extent it has retained the risks and rewards of ownership of the asset. When it has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the Group continues to recognise the transferred asset to the extent of the Group's continuing involvement in the asset. In that case, the Group also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

2.4 主要會計政策概要(續)

終止確認金融資產(於二零一八年一月一日起適用之香港財務報告準則第9號編製之政策及於二零一八年一月一日前適用之香港會計準則第39號編製之政策)

金融資產(或倘適用,一項金融資產之一部分或一組類似金融資產之一部分)主要在下列情況終止確認(即自本集團之綜合財務報表移除):

- 自資產收取現金流量之權利經已屆滿;或
- 本集團已轉讓其自資產收取現金流量之權利,或已根據「轉遞」安排就向第三方在並無重大延誤下全數支付所收取現金流量承擔責任;而(a)本集團已轉讓資產之絕大部分風險及回報,或(b)本集團並無轉讓或保留資產之絕大部分風險及回報,惟已轉讓資產之控制權。

倘本集團已轉讓其自資產收取現金流量之權利或已訂立轉遞安排,其評估是否保留資產所有權之風險及回報以及保留程度。倘無轉讓或保留資產之絕大部分風險及回報,亦無轉讓資產之控制權,則本集團繼續按本集團持續參與資產之程度確認已轉讓資產。在該情況下,本集團亦確認相關負債。已轉讓資產及相關負債乃按反映本集團已保留權利及義務之基準計量。

以轉讓資產擔保方式之持續參與按資產之原賬面值與本集團可能被要求償還之代價最高金額之較低者計量。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of financial assets (policies under HKFRS 9 applicable from 1 January 2018)

The Group recognises an allowance for expected credit losses (“ECLs”) for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

General approach

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

At each reporting date, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, 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 and considers reasonable and supportable information that is available without undue cost or effort, including historical and forward-looking information.

2.4 主要會計政策概要(續)

金融資產減值(於二零一八年一月一日起適用之香港財務報告準則第9號編製之政策)

本集團就並非按公平值計入損益之全部債務工具確認預期信貸虧損(「預期虧損」)撥備。預期虧損乃以按合同應得之合同現金流及本集團預期收到之全部現金流之間的差額為基準，並按概約原定實際利率折現。預期現金流將包括銷售所持抵押品或其他信貸增值物(屬合同條款一部份)之現金流。

一般方法

預期虧損按兩階段確認。自初始確認以來並無明顯增加之信貸風險方面，預期虧損乃按未來12個月內可能違約事件所致之信貸虧損(即12個月預期虧損)作撥備。自初始確認以來已有明顯增加之信貸風險方面，則須就所面臨風險餘下年期之預期信貸虧損(不論違約時間長短)(即年期預期虧損)作出虧損撥備。

在各報告日期，本集團評估金融工具之信貸風險自初始確認以來是否有明顯增加。作出評估時，本集團將金融工具於報告日期發生違約之風險與該金融工具於初始確認日期發生違約之風險相比，並考慮合理有據之在手資料(無須花費不必要之成本或努力)，包括歷史及前瞻資料。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of financial assets (policies under HKFRS 9 applicable from 1 January 2018) (continued)

General approach (continued)

For debt instruments at fair value through other comprehensive income, the Group applies the low credit risk simplification. At each reporting date, the Group evaluates whether the debt instruments are considered to have low credit risk using all reasonable and supportable information that is available without undue cost or effort. In addition, the Group considers that there has been a significant increase in credit risk when contractual payments are more than 90 days past due.

The Group generally considers a financial asset in default when contractual payments are 1 year past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Debt instruments at fair value through other comprehensive income and financial assets at amortised cost are subject to impairment under the general approach and they are classified within the following stages for measurement of ECLs except for trade receivables and contract assets which apply the simplified approach as detailed below.

2.4 主要會計政策概要(續)

金融資產減值(於二零一八年一月一日起適用之香港財務報告準則第9號編製之政策)(續)

一般方法(續)

就按公平值計入其他全面收益之金融資產，本集團採用低信貸風險簡化法。於各報告日期，本集團以一切合理有據之在手資料(無須花費不必要之成本或努力)評估債務工具是否仍被視為低信貸風險。此外，若合同款項已逾期九十天，本集團認為其信貸風險已明顯增加。

本集團通常視逾期一年之合同款項為已違約之金融資產。然而，在若干情況下，本集團亦可在外界或內部資料顯示本集團不大可能全額收到尚未收到之合同金額(而尚未計入本集團所持有之任何信貸增值物)時，視某金融資產已違約。若無合理預期可收回合同現金流，則該金融資產乃予撇銷。

按公平值計入其他全面收益之債務工具及按經攤銷成本計量之金融資產，按一般方法減值，且按下列階段分類計量預期信貸虧損，惟貿易應收款項及合同資產則應用下文詳述之簡易方法。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of financial assets (policies under HKFRS 9 applicable from 1 January 2018) (continued)

General approach (continued)

Stage 1 – Financial instruments for which credit risk has not increased significantly since initial recognition and for which the loss allowance is measured at an amount equal to 12-month ECLs;

Stage 2 – Financial instruments for which credit risk has increased significantly since initial recognition but that are not credit-impaired financial assets and for which the loss allowance is measured at an amount equal to lifetime ECLs;

Stage 3 – Financial assets that are credit-impaired at the reporting date (but that are not purchased or originated credit-impaired) and for which the loss allowance is measured at an amount equal to lifetime ECLs.

Simplified approach

For trade receivables and contract assets that do not contain a significant financing component or when the Group applies the practical expedient of not adjusting the effect of a significant financing component, the Group applies a simplified approach in calculating ECLs. Under the simplified approach, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

2.4 主要會計政策概要(續)

金融資產減值(於二零一八年一月一日起適用之香港財務報告準則第9號編製之政策)(續)

一般方法(續)

第一階段 – 金融工具自初始確認以來信貸風險未顯著增加，且其虧損撥備相等於十二個月預期信貸虧損；

第二階段 – 金融工具自初始確認後信貸風險顯著增加，但並非信貸減值金融資產且其虧損撥備相等於年期預期信貸虧損；

第三階段 – 於報告日期信貸減值的金融資產(但不是購買或原始信貸減值)，其虧損撥備相等於年期預期信貸虧損。

簡易方法

若貿易應收款項及合同資產不含重大融資部份或本集團按實際變通不調整重大融資部份之影響，則本集團在計算預期虧損時應用簡易方法。按簡易方法，本集團不追蹤信貸風險之變化，改而按各報告日期之年期預期虧損確認虧損撥備。本集團按歷史虧損經驗建立撥備矩陣，並按債務人及經濟環境之特定前瞻因素予以調整。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of financial assets (policies under HKAS 39 applicable before 1 January 2018)

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or a group of financial assets is impaired. An impairment exists if one or more events that occurred after the initial recognition of the asset have an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that a debtor or a group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation and observable data indicating that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

Financial assets carried at amortised cost

For financial assets carried at amortised cost, the Group first assesses individually whether objective evidence of impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be, recognised are not included in a collective assessment of impairment.

2.4 主要會計政策概要(續)

金融資產之減值(於二零一八年一月一日前適用之香港會計準則第39號編製之政策)

本集團於各報告期末評估是否有客觀憑證顯示一項金融資產或一組金融資產出現減值。倘於初步確認資產後發生一項或多項事件並對該項金融資產或該組金融資產之估計未來現金流量所造成之影響能可靠地估計，則存在減值。減值憑證可包括一名債務人或一群債務人正面臨重大財政困難、違約或未能償還利息或本金、彼等有可能破產或進行其他財務重組，以及有可觀察資料顯示估計未來現金流量出現可計量減少，例如欠款數目變動或出現與違約相關之經濟狀況。

按攤銷成本列賬之金融資產

就按攤銷成本列賬之金融資產而言，本集團首先會按個別基準就個別屬重大之金融資產或按組合基準就個別不屬重大之金融資產，評估是否個別存在客觀減值憑證。倘本集團釐定個別評估之金融資產(無論具重要性與否)並無客觀憑證顯示出現減值，則該項資產會歸入一組具有相似信貸風險特性之金融資產內，並共同評估該組金融資產是否存在減值。經個別評估減值且減值虧損會予確認或繼續確認入賬之資產，不會納入綜合減值評估之內。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of financial assets (policies under HKAS 39 applicable before 1 January 2018) (continued)

Financial assets carried at amortised cost (continued)

The amount of any impairment loss identified is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial asset's original effective interest rate (i.e., the effective interest rate computed at initial recognition).

The carrying amount of the asset is reduced through the use of an allowance account and the loss is recognised in profit or loss of the statement of profit or loss and other comprehensive income. Interest income continues to be accrued on the reduced carrying amount using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. Loans and receivables together with any associated allowance are written off when there is no realistic prospect of future recovery and all collateral has been realised or has been transferred to the Group.

If, in a subsequent period, the amount of the estimated impairment loss increases or decreases because of an event occurring after the impairment was recognised, the previously recognised impairment loss is increased or reduced by adjusting the allowance account. If a write-off is later recovered, the recovery is credited to other expenses in profit or loss of the statement of profit or loss and other comprehensive income.

Assets carried at cost

If there is objective evidence that an impairment loss has been incurred on an unquoted equity instrument that is not carried at fair value because its fair value cannot be reliably measured, or on a derivative asset that is linked to and must be settled by delivery of such an unquoted equity instrument, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset. Impairment losses on these assets are not reversed.

2.4 主要會計政策概要(續)

金融資產之減值(於二零一八年一月一日前適用之香港會計準則第39號編製之政策)(續)

按攤銷成本列賬之金融資產(續)

任何已識別之減值虧損數額按資產賬面值與按估計未來現金流量(不包括尚未產生之未來信貸虧損)現值之差額計算。估計未來現金流量現值乃按金融資產原有實際利率(即初步確認時計算之實際利率)貼現。

該資產之賬面值會通過使用撥備賬而減少，而虧損會於損益及其他全面收益表之損益內確認。利息收入繼續採用計量減值虧損時用以貼現未來現金流量之利率按減少後之賬面值計提。若日後收回之機會極低及所有抵押品已經變現或轉讓予本集團，則撇銷貸款及應收款項連同任何相關撥備。

倘於其後期間估計減值虧損金額由於確認減值以後發生之事件增加或減少，則透過調整撥備賬增加或減少先前確認之減值虧損。倘撇銷其後收回，該項收回計入損益及其他全面收益表中損益之其他開支內。

按成本列賬之資產

倘有客觀跡象表明一項無報價權益工具已產生減值虧損，而該項工具由於其公平值無法可靠計量而並無按公平值列賬，或其涉及之有關衍生資產已產生減值虧損，且及必須透過交付該無報價權益工具支付，則虧損之金額乃按該資產之賬面值與將預計未來現金流量按目前市場類似金融資產之回報率折現之現值兩者之差額計量。該等資產之減值虧損不得撥回。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment of financial assets (policies under HKAS 39 applicable before 1 January 2018) (continued)

Available-for-sale financial investments

For available-for-sale financial investments, the Group assesses at the end of each reporting period whether there is objective evidence that an investment or a group of investments is impaired.

If an available-for-sale asset is impaired, an amount comprising the difference between its cost (net of any principal payment and amortisation) and its current fair value, less any impairment loss previously recognised in profit or loss of the statement of profit or loss and other comprehensive income, is removed from other comprehensive income and recognised in the statement of profit or loss.

In the case of equity investments classified as available for sale, objective evidence would include a significant or prolonged decline in the fair value of an investment below its cost. The determination of what is “significant” or “prolonged” requires judgement. “Significant” is evaluated against the original cost of the investment and “prolonged” against the period in which the fair value has been below its original cost. Where there is evidence of impairment, the cumulative loss – measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that investment previously recognised in profit or loss of the statement of profit or loss and other comprehensive income – is removed from other comprehensive income and recognised in profit or loss of the statement of profit or loss and other comprehensive income. Impairment losses on equity instruments classified as available for sale are not reversed through profit or loss of the statement of profit or loss and other comprehensive income. Increases in their fair value after impairment are recognised directly in other comprehensive income.

The determination of what is “significant” or “prolonged” requires judgement. In making this judgement, the Group evaluates, among other factors, the duration or extent to which the fair value of an investment is less than its cost.

2.4 主要會計政策概要(續)

金融資產之減值(於二零一八年一月一日前適用之香港會計準則第39號編製之政策)(續)

可供出售金融投資

就可供出售金融投資而言，本集團於各報告期末評估是否有客觀證據指出一項投資或一組投資出現減值。

倘可供出售資產出現減值，有關金額(即其成本(扣除任何本金額付款及攤銷)與其現有公平值間之差額，減任何早前於損益及其他全面收益表內之損益內確認之任何減值虧損)將自其他全面收益移除，並在損益表中確認。

倘權益投資分類為可供出售，客觀證據將包括該項投資公平值大幅或長期跌至低於其成本值。釐定「大幅」或「長期」時需要作出判斷。「大幅」是就於投資之原來成本評估，而「長期」則就公平值低於其原來成本之期間評估。倘出現減值證據，則累計虧損(按收購成本與現時公平值間之差額，減該項投資早前於損益及其他全面收益表之損益內確認之任何減值虧損計量)將從其他全面收益中移除，並於損益及其他全面收益表之損益內確認。分類為可供出售之權益投資之減值虧損不可透過全面收益表之損益撥回。其公平值於減值後之增加會直接於其他全面收益中確認。

釐定是否屬「大幅」或「長期」時須作出判斷。在作出判斷時，本集團會評估(其中包括)一項投資的公平值少於其成本的持續時間或程度。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Financial liabilities (policies under HKFRS 9 applicable from 1 January 2018 and HKAS 39 applicable before 1 January 2018)

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as loans and borrowings or payables, as appropriate. The Group determines the classification of its financial liabilities at initial recognition.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Group's financial liabilities include trade and bills payables, other payables and accruals, interest-bearing bank and other borrowings and other non-current liabilities.

Subsequent measurement

Loans and borrowings

After initial recognition, interest-bearing loans and borrowings and payables are subsequently measured at amortised cost, using the effective interest rate method unless the effect of discounting would be immaterial, in which case they are stated at cost. Gains and losses are recognised in profit or loss when the liabilities are derecognised as well as through the effective interest rate amortisation process.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included in finance costs in the statement of profit or loss and other comprehensive income.

2.4 主要會計政策概要(續)

金融負債(於二零一八年一月一日起適用之香港財務報告準則第9號編製之政策及於二零一八年一月一日前適用之香港會計準則第39號編製之政策)

初步確認及計量

金融負債於初步確認時分類為貸款及借貸或應付款項(如適用)。本集團於初步確認時釐定其金融負債之分類。

所有金融負債初步按公平值確認，而就貸款及借貸以及應付款項而言，則扣除直接應計交易成本確認。

本集團之金融負債包括貿易及票據應付款項、其他應付款項及應計費用、銀行及其他付息借款及其他非流動負債。

其後計量

貸款及借貸

於初步確認後，付息貸款及借貸以及應付款項其後採用實際利率法按攤銷成本計量，除非折讓之影響屬不重大，於該情況下則按成本列賬。倘負債獲終止確認，收益及虧損會於損益內並透過以實際利率攤銷程序確認。

攤銷成本乃經考慮於購入時之任何折價或溢價以及實際利率組成部分之費用或成本後計算。實際利率攤銷乃計入損益及其他全面收益表之財務費用中。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Derecognition of financial liabilities (policies under HKFRS 9 applicable from 1 January 2018 and HKAS 39 applicable before 1 January 2018)

A financial liability is derecognised when the obligation under the liability is discharged or cancelled, or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and a recognition of a new liability, and the difference between the respective carrying amounts is recognised in profit or loss of the statement of profit or loss and other comprehensive income.

Offsetting of financial instruments (policies under HKFRS 9 applicable from 1 January 2018 and HKAS 39 applicable before 1 January 2018)

Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined on the weighted average basis and, in case of work in progress and finished goods, comprises direct materials, direct labour and an appropriate proportion of overheads. Net realisable value is based on estimated selling prices less any estimated costs to be incurred to completion and disposal.

The non-current assets of the photovoltaic power generation projects that are included in the scope of consolidation and are held for sale are classified as inventories and are measured in the same way as other inventories, including the borrowing costs capitalised until they are ready for use.

2.4 主要會計政策概要(續)

終止確認金融負債(於二零一八年一月一日起適用之香港財務報告準則第9號編製之政策及於二零一八年一月一日前適用之香港會計準則第39號編製之政策)

金融負債於負債之責任已解除、註銷或屆滿時終止確認。

當現有金融負債由同一貸款人以大致不同條款之另一負債取代時，或現有負債之條款有重大修改時，則有關交換或修改被視為終止確認原有負債及確認一項新負債，而有關賬面值間之差額乃於損益及其他全面收益表之損益內確認。

抵銷金融工具(於二零一八年一月一日起適用之香港財務報告準則第9號編製之政策及於二零一八年一月一日前適用之香港會計準則第39號編製之政策)

倘現時擁有於法律上可強制執行之作抵銷已確認金額，並有意按淨額基準結算，或可同時變現資產並結算負債，則金融資產及金融負債可互相抵銷，而有關淨額會於財務狀況表內呈報。

存貨

存貨乃按成本及可變現淨值兩者中較低者列賬。就在產品及製成品而言(包括直接物料、直接勞工及適當比例之經常開支)，成本乃按加權平均數基準釐定。可變現淨值則以估計售價減任何估計因完成及出售而產生之成本計算。

光伏發電項目之非流動資產計入合併範圍內及持作銷售分類為存貨，並按其他存貨(包括直至其可供使用所資本化之借貸成本)相同之方式計量。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Inventories (continued)

If a photovoltaic power generation project held for sale has been in operation for over one year and has no corresponding purchase commitment, purchase option or similar agreements, the non-current assets related thereto are transferred from “Inventories” to “Property, Plant and Equipment” in the consolidated statement of financial position.

Cash and cash equivalents

For the purpose of the consolidated statement of cash flows, cash and cash equivalents comprise cash on hand and demand deposits, and short term highly liquid investments that are readily convertible into known amounts of cash, are subject to an insignificant risk of changes in value, and have a short maturity of generally within three months when acquired, less bank overdrafts which are repayable on demand and form an integral part of the Group’s cash management.

For the purpose of the consolidated statement of financial position, cash and bank balances comprise cash on hand and at banks, including term deposits, and assets similar in nature to cash, which are not restricted as to use.

2.4 主要會計政策概要(續)

存貨(續)

倘持作出售之光伏發電項目已營運超過一年，且並無相應之購買承擔、購買選擇權或類似協議，則有關該項目之非流動資產會於綜合財務狀況表中由「存貨」轉撥至「物業、廠房及設備」。

現金及現金等價物

就綜合現金流量報表而言，現金及現金等價物包括手頭現金及活期存款，以及於購入後一般於三個月內到期、可隨時兌換為確定現金數額且價值變動風險不大之短期及高度流通投資，扣除須按要求時償還之銀行透支，並構成本集團現金管理一部分。

就綜合財務狀況表而言，現金及銀行結存包括手頭及銀行現金，包括定期存款及類似現金性質且無用途限制之資產。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, i.e., assets that necessarily take a substantial period of time to get ready for their intended use or sale, are capitalised as part of the cost of those assets. The capitalisation of such borrowing costs ceases when the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs capitalised. All other borrowing costs are expensed in the period in which they are incurred. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

Where funds have been borrowed generally, and used for the purpose of obtaining qualifying assets, a capitalisation rate has been applied to the expenditure on the individual assets. There was no capitalisation of interest at 31 December 2018 (2017: Nil).

Dividends

Final dividends are recognised as a liability when they are approved by the shareholders in a general meeting. No final dividend was proposed during the year (note 10).

2.4 主要會計政策概要(續)

借貸成本

收購、建造或生產合資格資產(即需要花費長時間方可達致擬定用途或出售之資產)直接應佔之借貸成本乃予以資本化,作為該等資產成本之一部分。在該等資產基本可作擬定用途或出售時,有關借貸成本之資本化將停止。等待用於合資格資產之特定借款暫時性投資所賺取之投資收入乃自己資本化借貸成本中扣除。所有其他借貸成本均於其產生期間列作開支。借貸成本包括利息以及實體借入資金所產生之其他成本。

倘資金屬一般借貸,並用於取得合資格資產,則就個別資產之開支應用資本化比率。於二零一八年十二月三十一日並無資本化利息(二零一七年:無)。

股息

末期股息於股東大會上獲股東批准後才確認為負債。年內並無建議派發末期股息(附註10)。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Provisions

A provision is recognised when a present obligation (legal or constructive) has arisen as a result of a past event and it is probable that a future outflow of resources will be required to settle the obligation, provided that a reliable estimate can be made of the amount of the obligation.

When the effect of discounting is material, the amount recognised for a provision is the present value at the end of the reporting period of the future expenditures expected to be required to settle the obligation. The increase in the discounted present value amount arising from the passage of time is included in finance costs in the consolidated statement of profit or loss and other comprehensive income.

Provisions for assurance-type warranties granted by the Group are recognised based on sales volume and past experience of the level of repairs and returns, discounted to their present values as appropriate.

2.4 主要會計政策概要(續)

撥備

倘因過往事件導致現時承擔責任(法定或推定責任)，且日後可能須流失資源以履行責任，並能可靠估計責任之數額，則確認撥備。

倘若貼現影響重大，則所確認之撥備數額為預計履行責任所須之未來開支於報告期末之現值。貼現現值隨時間流逝而增加之款項計入綜合損益及其他全面收益表中列為財務成本。

本集團對保證保養作出的撥備乃按銷量及過去的維修及退貨情況確認，在適當的情況下貼現至其現值。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Provisions (continued)

The Group typically provides warranties for general repairs of defects that existed at the time of delivery of the turnkey production lines and household solar power stations pursuant to the respective contracts. These assurance-type warranties are accounted for under HKAS 37 *Provisions, Contingent Liabilities and Contingent Assets*. The Group also provides a warranty of one to two years beyond fixing defects for the turnkey production lines that existed at the time of sale. These service type warranties are sold bundled together with the construction of turnkey production lines. Contracts for bundled sales of turnkey production lines and a service-type warranty comprise two performance obligations because the promises to transfer the turnkey production lines and to provide the service-type warranty are capable of being distinct. Using the relative stand-alone selling price method, a portion of the transaction price is allocated to the service-type warranty. Revenue of such service-type warranty is recognised over time according to actual costs incurred, and if no cost incurred during the warranty period, then the service type warranty will be recognised as revenue at the time upon the maturity of the warranty period.

Income tax

Income tax comprises current and deferred tax. Income tax relating to items recognised outside profit or loss is recognised outside profit or loss, either in other comprehensive income or directly in equity.

Current tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period, taking into consideration interpretations and practices prevailing in the countries in which the Group operates.

Deferred tax is provided, using the liability method, on all temporary differences at the end of the reporting period between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

2.4 主要會計政策概要(續)

撥備(續)

本集團一般根據相關合同為整套生產線及用戶太陽能發電站交付時所存在的缺陷提供一般修理保養。該等保證保養根據香港會計準則第37號撥備、或然負債及或然資產入賬。本集團亦在修理整套生產線於銷售時所存在的缺陷之外為其提供一直兩年的保養。該等服務類保養與建設整套生產線捆綁銷售。整套生產線捆綁銷售合同及一份服務類保養包括兩項履約責任，乃由於轉讓整套生產線及提供服務類保養的承諾有別。使用相對獨立售價法，一部分交易價分配至服務類保養。該服務類保養的收入根據所產生的實際成本隨時間確認，倘保養期內並無產生成本，則服務類保養將於保養期屆滿時確認為收入。

所得稅

所得稅包括即期及遞延稅項。有關損益外確認項目之所得稅於其他全面收益或直接於權益內在損益外確認。

現行及過往期間之即期稅項資產及負債乃根據於報告期末已實施或大致實施之稅率(及稅務法例)，考慮本集團經營所在國家之現行詮釋及慣例，按預期可自稅務當局收回或向其支付之數額計算。

遞延稅項乃使用負債法就於報告期末資產與負債之稅基及其作財務申報用途之賬面值兩者間之所有暫時差額計提撥備。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Income tax (continued)

Deferred tax liabilities are recognised for all taxable temporary differences, except:

- when the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of taxable temporary differences associated with investments in subsidiaries, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, the carryforward of unused tax credits and any unused tax losses. Deferred tax assets are recognised to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, the carryforward of unused tax credits and unused tax losses can be utilised, except:

- when the deferred tax asset relating to the deductible temporary differences arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of deductible temporary differences associated with investments in subsidiaries, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

2.4 主要會計政策概要(續)

所得稅(續)

遞延稅項負債乃就所有應課稅暫時差額確認，除非：

- 遞延稅項負債乃因初步確認商譽或一項並非業務合併且在交易當時不會對會計溢利或應課稅溢利或虧損造成影響之交易中之資產或負債而產生；及
- 就與投資於附屬公司有關之應課稅暫時差額而言，倘暫時差額撥回之時間可予控制或暫時差額於可見將來可能不會撥回則除外。

遞延稅項資產乃就所有可扣減暫時差額、承前未用稅項抵免及任何未用稅項虧損予以確認。遞延稅項資產之確認以有可能將會有應課稅溢利抵銷可扣減暫時差額、承前未用稅項抵免及未用稅項虧損為限，除非：

- 與可扣減暫時差額有關之遞延稅項資產乃因初步確認一項並非業務合併且在交易當時不會對會計溢利或應課稅溢利或虧損造成影響之交易中之資產或負債而產生；及
- 就與投資於附屬公司有關之可扣減暫時差額而言，遞延稅項資產僅會在暫時差額於可見將來可能會撥回及可能有應課稅溢利可用於對銷暫時差額時方會確認。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Income tax (continued)

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 profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at the end of each reporting period and are recognised to the extent that it has become probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and deferred tax liabilities are offset if and only if the Group has a legally enforceable right to set off current tax assets and current tax liabilities and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

Government grants

Government grants are recognised at their fair values where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the grant relates to an expense item, it is recognised as income on a systematic basis over the periods that the costs, which it is intended to compensate, are expensed.

2.4 主要會計政策概要(續)

所得稅(續)

遞延稅項資產之賬面值於各報告期末均會進行審閱，如不再可能有足夠應課稅溢利可用於抵免全部或部分遞延稅項資產，則會予以撇減。未確認之遞延稅項資產會於各報告期末重新評估，在可能有足夠應課稅溢利可用於收回全部或部分遞延稅項資產時予以確認。

遞延稅項資產及負債乃根據於報告期末已實施或已大致實施之稅率（及稅務法例），按預期將於資產變現或負債償付期間適用之稅率計量。

倘且僅倘有合法可強制執行權利將即期稅項資產與即期稅項負債抵銷，而遞延稅項資產及遞延稅項負債乃關於同一稅務當局就同一應課稅實體或計劃於各未來期間（而預期在有關期間內將結清或收回大量遞延稅項負債或資產）以淨額基準結算即期稅項負債及資產或同時變現資產及結清負債之不同應課稅實體所徵收之所得稅，則遞延稅項資產及遞延稅項負債可予抵銷。

政府補貼

政府補貼於有理由確定能予以收取，以及符合所有附帶條件後，按公平值確認。當補貼涉及開支項目，則以有系統方式，將補貼在有關期間內呈列並確認為收益，以抵銷擬作補償之成本。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Government grants (continued)

Where the grant relates to an asset, the fair value is credited to a deferred income account and is released to the statement of profit or loss over the expected useful life of the relevant asset by equal annual instalments or deducted from the carrying amount of the asset and released to the statement of profit or loss by way of a reduced depreciation charge.

Revenue recognition (applicable from 1 January 2018)

Revenue from contracts with customers

Revenue from contracts with customers is recognised when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

When the contract contains a financing component which provides the customer a significant benefit of financing the transfer of goods or services to the customer for more than one year, revenue is measured at the present value of the amount receivable, discounted using the discount rate that would be reflected in a separate financing transaction between the Group and the customer at contract inception. When the contract contains a financing component which provides the Group a significant financial benefit for more than one year, revenue recognised under the contract includes the interest expense accreted on the contract liability under the effective interest method. For a contract where the period between the payment by the customer and the transfer of the promised goods or services is one year or less, the transaction price is not adjusted for the effects of a significant financing component, using the practical expedient in HKFRS 15.

2.4 主要會計政策概要(續)

政府補貼(續)

倘補貼與資產有關，則公平值計入遞延收益賬，並於有關資產估計可使用年期按等額分期撥至損益表，或自資產賬面值扣除並透過減少折舊開支的方式撥至損益。

收入確認(自二零一八年一月一日起適用)

來自客戶合同的收益

來自客戶合同的收益乃於商品或服務的控制權轉讓予客戶時確認，該金額能反映本集團預期就交換該等商品或服務有權獲得的代價。

當合同中包含融資成分，該融資成分為客戶提供超過一年的商品或服務轉讓融資的重大利益時，收益按應收款項的現值計量，使用貼現率折現，該貼現率將反映在本集團與客戶在合同開始時的單獨融資交易中。當合同中包含融資部分，該融資部分為在本集團提供了一年以上的重大財務利益時，合同項下確認的收益包括按實際利息法在合同負債上加算的利息。就客戶付款至轉讓承諾商品或者服務的期限為一年或者更短的合同而言，交易價格採用香港財務報告準則第15號中實際權宜之計，不會對重大融資部分的影響作出調整。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Revenue recognition (applicable from 1 January 2018) (continued)

Revenue from contracts with customers (continued)

The Group's principal activities consist of (i) construction of turnkey production lines for the manufacture of both amorphous silicon-based and CIGS based thin film solar photovoltaic modules and the technological development and production of GaAs thin film power turnkey production lines, and (ii) construction of solar power stations, rooftop power stations, household system, small to medium-sized enterprises ("SME") commercial systems etc., and sale of solar power stations, operation of rooftop power stations, sale of solar photovoltaic panels, photovoltaic application products and electricity, and provision of engineering services.

(a) Accounting for revenue from construction contracts

The Group conducted several construction contracts both in the Manufacturing segment to deliver turnkey production lines for the manufacturing of thin-film solar photovoltaic modules and in the Downstream segment to construct a series of solar power stations for certain small to medium-sized enterprises and poverty alleviation projects.

The Group's performance creates or enhances an asset or work in progress that the customer controls as the asset is created or enhanced, thus, the Group satisfies a performance obligation and continues to recognise revenue over time, by reference to completion of the specific transaction assessed on the basis of the actual costs incurred up to the end of the reporting period as a percentage of total estimated costs for each contract.

2.4 主要會計政策概要(續)

收入確認(自二零一八年一月一日起適用)
(續)

來自客戶合同的收益(續)

本集團的主要業務包括：(i)建設矽基及銅銦鎵硒薄膜太陽能光伏組件製造用整套生產線及碲化鎵薄膜發電整套生產線技術開發及生產；及(ii)建造太陽能電站、屋頂電站、戶用系統、中小企商用系統等，及銷售太陽能電站、經營屋頂電站、銷售太陽能光伏組件、光伏應用產品及電力，以及提供工程服務。

(a) 建設合同的收入入賬

本集團分別就製造分部及下游分部進行多份建設合同，以分別就交付薄膜太陽能光伏組件製造用整套生產線及為若干中小企業製造一系列太陽能電站以及扶貧項目。

本集團之履約創造或提升於有關資產獲創造或提升時由客戶控制之資產或在建工程，故此，本集團於一段時間內履行履約責任及參照特定交易之完成情況(按每份合同截至報告期末已產生成本佔該合同總估計成本之百分比評估)繼續隨時間確認收入。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Revenue recognition (applicable from 1 January 2018) (continued)

Revenue from contracts with customers (continued)

(b) Sale of goods

The Group's sale of goods includes the sale of solar PV panels and PV application products. The Group's contracts with customers for the sale of goods generally include one performance obligation. Revenue is recognised at the point in time when control of the asset is transferred to the customer, generally on delivery of the goods.

(c) Sales to distributors

The Group sells rooftop solar power systems through distributors. The Group assesses that there are two distinct performance obligations for the sales to distributors: (i) the sale of rooftop solar power systems is recognised at the point in time when control of the rooftop solar power systems has been transferred to the customers, generally upon the delivery of these systems; (ii) the installation service is recognised as revenue upon completion of the installation, considering that the installation period is very short and limited within 3 to 10 days.

(d) Sale of electricity

Revenue from the sale of electricity is recognised at the point in time upon transmission of electricity to the electricity purchasing companies or provincial grid companies.

2.4 主要會計政策概要(續)

收入確認(自二零一八年一月一日起適用)
(續)

來自客戶合同的收益(續)

(b) 銷售貨品

本集團所銷售貨品包括銷售太陽能光伏電板及光伏應用產品。本集團有關銷售貨品之客戶合同一般包括一項履約責任。收入於資產控制權轉移至客戶(一般為交付貨品時)之時點確認。

(c) 銷售予經銷商

本集團透過經銷商銷售屋頂太陽能系統。本集團評估就銷售予經銷商存有兩項不同之履約責任：(i)屋頂太陽能系統之銷售於屋頂太陽能系統之控制權轉移至客戶之時點(一般為交付該等系統時)確認；(ii)安裝服務於完成安裝服務之時點確認收入，因考慮到安裝時間非常短，以三至十天為限所致。

(d) 銷售電力

銷售電力之收入於傳輸電力予購買電力公司或省級電網公司之時點確認。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Revenue recognition (applicable from 1 January 2018) (continued)

Significant financing component

Generally, the Group receives short-term advances from its customers, including both the turnkey production line construction contract customers and downstream distributors. Using the practical expedient in HKFRS 15, the Group does not adjust the promised amount of consideration for the effects of a significant financing component if it expects, at contract inception, that the period between the transfer of the promised good or service to the customer and when the customer pays for that good or service will be one year or less.

Meanwhile, when the Group manufactures and delivers turnkey production lines to its customers, revenue is recognised over time with corresponding contract assets and trade receivables being recognised. The Group expects that full collection can be obtained from the customers within one year or less when the corresponding revenue is recognised for the turnkey production line construction contracts, and therefore, using the practical expedient in HKFRS 15, no significant financing component involving in the Group's execution of construction contracts is recognised.

Other income

Interest income is recognised on an accrual basis using the effective interest method by applying the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, when appropriate, to the net carrying amount of the financial asset.

Dividend income is recognised when the shareholders' right to receive payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

2.4 主要會計政策概要(續)

收入確認(自二零一八年一月一日起適用)
(續)

重大融資成分

一般而言，本集團客戶短期應收預付款包括整套生產線建設合同客戶及下游經銷商。使用香港財務報告準則第15號之實際權宜之計，倘於達成合同時預期將所承諾商品或服務轉讓予客戶，以及客戶就該商品或服務付款，中間為時將於一年或以下，則本集團無需就重大融資成分之影響調整代價中之所承諾金額。

與此同時，倘本集團為其客戶製造並交付整套生產線，收入乃於相應合同資產及應收貿易款項獲確認之一段時間內予以確認。本集團預期，待整套生產線建設合同之相應收入獲確認後，可於一年或以下時間內向客戶收取全額款項，因此，已使用香港財務報告準則第15號之實際權宜之計，不確認本集團實行建設合同時所涉及之重大融資成分。

其他收入

利息收入按應計基準以實際利率法使用比率透過應用該比率將估計於金融工具預計年期或較短期間(按適用情況)內之未來現金收入準確貼現至該金融資產之賬面淨值確認。

股息收入於股東收取付款之權利確立，而與股息相關之經濟利益將流入本集團，且金額可予可靠計量時確認。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Revenue recognition (applicable before 1 January 2018)

Revenue is recognised when it is probable that the economic benefits will flow to the Group and when the revenue can be measured reliably, on the following bases:

- (a) from the manufacture of turnkey production lines, construction of solar power stations for certain small to medium-sized enterprises and poverty alleviation projects, on the percentage of completion basis, pursuant to which costs to complete a contract are estimated and revenue is recognised based on the estimated progress to completion, as further explained in the accounting policy for “Construction contracts (applicable before 1 January 2018)” below, depending on the structure and terms of the arrangements;
- (b) from the sale of good which is recognised when the goods have been delivered and title thereto has been transferred;
- (c) from sales to distributors, two identifiable components of the revenue shall be considered: (i) sales revenue of delivered rooftop solar power systems is recognised when the rooftop solar power systems have been delivered; and (ii) installation service revenue is deferred and then recognised as revenue when the installation service is performed;
- (d) from the sale of electricity, revenue is generally earned and recognised upon transmission of electricity to the electricity purchasing companies or provincial grid companies;
- (e) from the rendering of services, when the services are rendered;

2.4 主要會計政策概要(續)

收入確認(於二零一八年一月一日前適用)

收入乃於本集團預計可獲得經濟利益及能可靠計算收入時，按下列基準確認入賬：

- (a) 來自製造整套生產線、為若干中小型企業興建太陽能發電站以及光伏扶貧項目按完工百分比基準，據此，完成合同之成本及收入分別視乎安排之結構及條款，按估計完成進度估計及確認(按下文「建設合同(於二零一八年一月一日前適用)」之會計政策所進一步闡述)；
- (b) 來自銷售貨品，於貨品已付運及其擁有權已轉移時確認。
- (c) 來自向經銷商之銷售，須慮及兩項可識別之收益分部：(i)在戶用屋頂太陽能系統已經交付後，則會確認已交付戶用屋頂太陽能系統之銷售收入；及(ii)進行安裝服務時，安裝服務收入會予以遞延並確認為收益；
- (d) 售電的收入通常在向購電公司或省級電網公司輸電後賺取及確認；
- (e) 來自提供服務，於提供服務時；

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Revenue recognition (applicable before 1 January 2018) (continued)

- (f) interest income, on an accrual basis using the effective interest method by applying the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, when appropriate, to the net carrying amount of the financial asset; and
- (g) dividend income, when the shareholders' right to receive payment has been established.

Contract assets (applicable from 1 January 2018)

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognised for the earned consideration that is conditional.

Contract liabilities (applicable from 1 January 2018)

A contract liability is the 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. If a customer pays consideration before the Group transfers goods or services to the customer, a contract liability is recognised when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognised as revenue when the Group performs under the contract.

Construction contracts (applicable before 1 January 2018)

Contract revenue comprises the agreed contract amount and appropriate amounts from variation orders, claims and incentive payments. Contract costs incurred comprise direct materials, the costs of subcontracting, direct labour and an appropriate proportion of variable and fixed construction overheads.

2.4 主要會計政策概要(續)

收入確認(自二零一八年一月一日起適用)(續)

- (f) 利息收入，按應計基準以實際利率法使用比率透過應用該比率將估計於金融工具預計年期或較短期間(按適用情況)內之未來現金收入準確貼現至該金融資產之賬面淨值；及
- (g) 股息收入，當股東收取付款之權利確立時。

合同資產(自二零一八年一月一日起適用)

合同資產指對轉讓予客戶的貨品或服務收取代價的權利。倘若本集團於客戶支付代價前或款項到期前向客戶轉讓貨品或服務而履約，則就有條件賺取的代價確認合同資產。

合同負債(自二零一八年一月一日起適用)

合同負債指本集團因已向客戶收取代價(或代價款項已到期)，而須向客戶轉讓貨品或服務的責任。倘客戶於本集團將貨品或服務轉讓予客戶前支付代價，則於作出付款或付款到期時(以較早者為準)確認合同負債。合同負債於本集團履行合同時確認為收入。

建設合同(於二零一八年一月一日起適用)

合同收入包括議定合同金額及因訂單、索償及佣金變動而產生之適當金額。所產生之合同成本包括直接物料、分包成本、直接勞工及適當比例之可變及固定建設工程經常開支。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Construction contracts (applicable before 1 January 2018) (continued)

Revenue from fixed price construction contracts is recognised using the percentage of completion method, measured by reference to the proportion of costs incurred to date to the estimated total cost of the relevant contract.

Provision is made for foreseeable losses as soon as they are anticipated by management. Where contract costs incurred to date plus recognised profits less recognised losses exceed progress billings, the surplus is treated as an amount due from contract customers. Where progress billings exceed contract costs incurred to date plus recognised profits less recognised losses, the surplus is treated as an amount due to contract customers.

Share-based payments

The Company operates a share option scheme for the purpose of providing incentives and rewards to eligible participants who contribute to the success of the Group's operations. Employees (including directors) of the Group receive remuneration in the form of share-based payments, whereby employees render services as consideration for equity instruments ("equity-settled transactions").

The cost of equity-settled transactions with employees is measured by reference to the fair value at the date at which they are granted.

The cost of equity-settled transactions is recognised in employee benefit expense, together with a corresponding increase in equity, over the period in which the performance and/or service conditions are fulfilled. The cumulative expense recognised for equity-settled transactions at the end of each reporting period until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of equity instruments that will ultimately vest. The charge or credit to profit or loss of the statement of profit or loss and other comprehensive income for a period represents the movement in the cumulative expense recognised as at the beginning and end of that period.

2.4 主要會計政策概要(續)

建設合同(於二零一八年一月一日前適用)(續)

固定價格建設合同之收入乃使用完工百分比法確認，並參考直至該日已產生之成本佔有關合同之估計總成本之比例計量。

倘管理層預計到於可見未來出現虧損，即會提取撥備。倘直至該日已產生之合同成本另加已確認溢利減去已確認虧損超逾進度賬單款項，則有關結餘被視為應收客戶之合同工程款項。倘進度賬單款項超逾直至該日已產生之合同成本另加已確認溢利減去已確認虧損，則有關結餘被視為應付合同客戶之款項。

以股份為基礎之付款

本公司設有購股權計劃，以鼓勵及獎勵對本集團營運成功作出貢獻之合資格參與者。本集團僱員(包括董事)收取以股份為基礎之付款形式發出之酬金，據此，僱員提供服務作為權益工具之代價(「權益結算交易」)。

僱員之以權益結算交易之成本乃參考彼等授出當日之公平值計算。

權益結算交易之成本連同股本之相應增加會於達成表現及/或服務條件之期間內於僱員福利開支中確認。由各報告期末直至歸屬日就權益結算交易確認之累計開支反映歸屬期屆滿之程度，以及本集團就最終將會歸屬之權益工具數目所作最佳估計。期內於損益及其他全面收益表扣除或計入損益之項目指於期初及期終確認之累計開支變動。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Share-based payments (continued)

Service and non-market performance conditions are not taken into account when determining the grant date fair value of awards, but the likelihood of the conditions being met is assessed as part of the Group's best estimate of the number of equity instruments that will ultimately vest. Market performance conditions are reflected within the grant date fair value. Any other conditions attached to an award, but without an associated service requirement, are considered to be non-vesting conditions. Non-vesting conditions are reflected in the fair value of an award and lead to an immediate expensing of an award unless there are also service and/or performance conditions.

For awards that do not ultimately vest because non-market performance and/or service conditions have not been met, no expense is recognised. Where awards include a market or non-vesting condition, the transactions are treated as vesting irrespective of whether the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

Where the terms of an equity-settled award are modified, as a minimum an expense is recognised as if the terms had not been modified, if the original terms of the award are met. In addition, an expense is recognised for any modification that increases the total fair value of the share-based payments, or is otherwise beneficial to the employee as measured at the date of modification.

2.4 主要會計政策概要(續)

以股份為基礎之付款(續)

釐定獎勵的授出日公平值並不考慮服務及非市場表現條件，惟能達成條件的可能性則被評定為將最終歸屬為本集團權益工具數目的最佳估計的一部分。市場表現條件將反映在授出日的公平值。附帶於獎勵中但並無相關服務要求的其他任何條件皆視為非歸屬條件。反映非歸屬條件之獎勵公平值若當中不包含服務及／或表現條件乃即時予以支銷。

因未能達至非市場表現及／或服務條件，而導致最終並無歸屬的獎勵並不會確認支銷，惟包括一項市場或非歸屬條件的獎勵，無論市場或非歸屬條件是否達成，其均會被視為已歸屬，前提是所有其他表現及／或服務條件須已達成。

當修訂權益結算報酬之條款時，倘符合報酬之原有條款，則會確認最少之開支，猶如條款並無修訂一樣。此外，會就導致以股份支付交易之公平總值增加，或按於修訂日期計量而對僱員有利之任何修訂確認開支。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Share-based payments (continued)

Where an equity-settled award is cancelled, it is treated as if it had vested on the date of cancellation, and any expense not yet recognised for the award is recognised immediately. This includes any award where non-vesting conditions within the control of either the Group or the employee are not met.

However, if a new award is substituted for the cancelled award, and is designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

The dilutive effect of outstanding options is reflected as additional share dilution in the computation of earnings per share.

Other employee benefits

Pension schemes

The Group operates a defined contribution Mandatory Provident Fund retirement benefit scheme (the “MPF Scheme”) under the Mandatory Provident Fund Schemes Ordinance for those employees who are eligible to participate in the MPF Scheme. Contributions are made based on a percentage of the employees’ basic salaries and are charged to profit or loss of the statement of profit or loss and other comprehensive income as they become payable in accordance with the rules of the MPF Scheme. The assets of the MPF Scheme are held separately from those of the Group in an independently administered fund. The Group’s employer contributions vest fully with the employees when contributed into the MPF Scheme.

The employees of the Group’s subsidiaries which operate in the PRC are required to participate in a central pension scheme operated by the local municipal government. These subsidiaries are required to contribute to a certain percentage of their payroll costs to the central pension scheme. The contributions are charged to profit or loss of the statement of profit or loss and other comprehensive income as they become payable in accordance with the rules of the central pension scheme.

2.4 主要會計政策概要(續)

以股份為基礎之付款(續)

當權益結算報酬被註銷時，會被視作於註銷當日經已歸屬，並即時確認尚未就報酬確認之任何開支。這包括不符合本集團或僱員所能控制之非歸屬條件之任何報酬。

然而，倘已註銷報酬由任何新報酬所替代，並於授出當日獲指定為替代報酬，則該項註銷及新報酬會如前段所述被處理，猶如彼等乃原有報酬之修訂。

於計算每股盈利時，尚未行使購股權之攤薄影響乃反映為額外之股份攤薄。

其他僱員福利

退休金計劃

本集團根據強制性公積金計劃條例為其合資格參與計劃之僱員設立一項定額供款強制性公積金退休福利計劃(「強積金計劃」)。供款乃以僱員之基本薪金百分比作出，並根據強積金計劃之規則於應付時在損益及其他全面收益表之損益內扣除。強積金計劃之資產乃存放於一個獨立管理之基金內，與本集團之資產分開持有。當本集團向強積金計劃供款後，僱員有權完全享有僱主供款。

本集團於中國所經營之附屬公司之僱員，須參加當地市政府設立之中央退休金計劃。此等附屬公司須按其薪酬成本之若干百分比向中央退休金計劃供款，並於根據中央退休金計劃之規則須支付該款項時自損益及其他全面收益表之損益扣除。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Other employee benefits (continued)

Termination benefits

Termination benefits are recognised at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group recognises restructuring costs involving the payment of termination benefits.

Foreign currencies

These financial statements are presented in Hong Kong dollars, which is the Company's functional currency. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency. Foreign currency transactions recorded by the entities in the Group are initially recorded using their respective functional currency rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency rates of exchange ruling at the end of the reporting period. Differences arising on settlement or translation of monetary items are recognised in profit or loss of the statement of profit or loss and other comprehensive income.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was measured. The gain or loss arising on translation of a non-monetary item measured at fair value is treated in line with the recognition of the gain or loss on change in fair value of the item (i.e., translation difference on the item whose fair value gain or loss is recognised in other comprehensive income or profit or loss is also recognised in other comprehensive income or profit or loss, respectively).

2.4 主要會計政策概要(續)

其他僱員福利(續)

終止受僱福利

終止受僱福利按本集團不可撤回該等福利要約及當本集團確認涉及支付終止受僱福利之重組成本，取兩者較早發生時確認。

外幣

此等財務報表以港元呈列，乃本公司之功能貨幣。本集團各實體決定其本身之功能貨幣，而計入各實體財務報表之項目均以該功能貨幣計量。本集團各實體所入賬之外幣交易初步乃按交易日期其各自之功能貨幣現行匯率入賬。以外幣為單位之貨幣資產及負債按於報告期末功能貨幣之適用匯率換算。因結算或換算貨幣項目之差額會於損益及其他全面收益表之損益中確認。

以外幣為單位而按歷史成本計量之非貨幣項目按初次交易日之匯率換算。以外幣為單位而按公平值計量之非貨幣項目，按計量公平值當日之匯率換算。換算非貨幣項目產生並按公平值計量之收益或虧損乃與確認該項目之公平值變動而確認之盈虧之處理方法一致(即於其他全面收益或損益中確認公平值盈虧之項目之匯兌差額，亦分別於其他全面收益或損益中確認)。

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Foreign currencies (continued)

In determining the exchange rate on initial recognition of the related asset, expense or income on the derecognition of a non-monetary asset or non-monetary liability relating to an advance consideration, the date of initial transaction is the date on which the Group initially recognises the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, the Group determines the transaction date for each payment or receipt of the advance consideration.

The functional currencies of certain overseas subsidiaries are currencies other than the Hong Kong dollar. As at the end of the reporting period, the assets and liabilities of these entities are translated into Hong Kong dollars at the exchange rates prevailing at the end of the reporting period and their statements of other comprehensive income are translated into Hong Kong dollars at the weighted average exchange rates for the year. The resulting exchange differences are recognised in other comprehensive income and accumulated in the exchange reserve. On disposal of a foreign operation, the component of other comprehensive income relating to that particular foreign operation is recognised in profit or loss of the statement of profit or loss and other comprehensive income.

For the purpose of the consolidated statement of cash flows, the cash flows of overseas subsidiaries are translated into Hong Kong dollars at the exchange rates ruling at the dates of the cash flows. Frequently recurring cash flows of overseas subsidiaries which arise throughout the year are translated into Hong Kong dollars at the weighted average exchange rates for the year.

2.4 主要會計政策概要(續)

外幣(續)

於確定初始確認相關資產、費用或收入或終止確認與預付代價有關的非貨幣資產或非貨幣負債的匯率時，初始交易日為本集團初始確認預付代價產生的非貨幣資產或非貨幣負債的日期。倘若支付或收取多筆預付款，則本集團釐定支付或收取每一筆預付代價的交易日。

若干海外附屬公司之功能貨幣乃港元以外之貨幣。於報告期末，該等實體之資產及負債按於報告期末之現行匯率換算為港元，而該等實體之其他全面收益表則按該年度之加權平均匯率換算為港元。所產生之匯兌差額均於其他全面收益確認，並於外匯儲備累計。於出售海外業務時，有關該持定海外業務之其他全面收益部分於損益及其他全面收益表之損益中確認。

就綜合現金流量報表而言，海外附屬公司之現金流量乃按現金流量當日之適用匯率換算為港元。整年頻繁產生之海外附屬公司現金流量乃按該年度之加權平均匯率換算為港元。

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3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

The preparation of the Group's financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and their accompanying disclosures, and the disclosure of contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amounts of the assets or liabilities affected in the future.

Judgements

In the process of applying the Group's accounting policies, management has made the following judgements, apart from those involving estimations, which have the most significant effect on the amounts recognised in the financial statements.

3. 主要會計判斷及估計

編製本集團財務報表需要管理層作出判斷、估計及假設，而此等將影響收入、開支、資產及負債之呈報金額及其相關披露，以及或然負債之披露。該等假設及估計之不明朗因素可能導致未來需要對受影響資產或負債之賬面值作出重大調整。

判斷

於採用本集團會計政策時，除相關估計外，管理層已作出以下對財務報表確認金額有最重大影響之判斷。

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3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

(continued)

Judgements (continued)

(i) Revenue from contracts with customers

The Group applied the following judgements that significantly affect the determination of the amount and timing of revenue from contracts with customers:

(a) Identifying performance obligations in a bundled sale of equipment and installation services

The Group provides installation services that are bundled together with the sale of rooftop solar power systems to distributors.

The Group determined that both the rooftop solar power systems and installation are capable of being distinct. The Group determined that the promises to transfer the rooftop solar power systems and to provide installation are distinct within the context of the contract as historically the Group used to deliver rooftop solar power systems separately without installation service to the distributors. The Group is not providing a significant integration service because the presence of the rooftop solar power systems and installation together in this contract do not result in any additional or combined functionality and neither the equipment nor the installation modifies or customise the other. In addition, the rooftop solar power system and installation are not highly interdependent or highly interrelated, because the Group would be able to transfer the rooftop solar power system even if the distributor declined installation. Consequently, the Group allocated a portion of the transaction price to the delivered rooftop solar power systems and the installation services based on relative stand-alone selling prices.

3. 主要會計判斷及估計(續)

判斷(續)

(i) 與客戶簽訂合同之收入

本集團採納以下嚴重影響釐定與客戶簽訂合同之收入的金額及時間的判斷：

(a) 釐定捆綁銷售設備及安裝服務的履約責任

本集團向經銷商提供與銷售屋頂太陽能系統捆綁的安裝服務。

本集團認為屋頂太陽能系統及安裝可區分。由於過往本集團曾向經銷商單獨交付屋頂太陽能系統而並無提供安裝服務，因此，本集團認為在合同範圍內轉讓屋頂太陽能系統與提供安裝服務的承諾有別。本集團並無提供明顯的集成服務，因為合同中屋頂太陽能系統及安裝的同時存在不會導致任何附加或組合功能，設備及安裝亦不會改變彼此或相互定制。此外，屋頂太陽能系統及安裝並不高度相互依賴或高度相互關聯，因為即使經銷商拒絕安裝，本集團仍可轉讓屋頂太陽能系統。因此，本集團根據相對獨立售價將部分交易價分配予已交付的屋頂太陽能系統及安裝服務。

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3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

(continued)

Judgements (continued)

(i) *Revenue from contracts with customers (continued)*

(b) *Consideration of significant financing component in a contract*

The Group constructs turnkey production lines for its customers. In general, the construction of turnkey production lines is estimated to be completed within two years with a warranty period of one to two years. Under rare situations, such as the construction of factories for the turnkey production lines being delayed, the construction period may be extended. The credit period to customers is usually short and limited to only days from different milestones as specified in the contract. The Group recognises revenue arising from the construction contracts over time, by reference to completion of the specific obligations assessed on the basis of the actual costs incurred up to the end of the reporting period as a percentage of total estimated costs for each contract. The Group considers that the turnkey production lines are constructed based on the construction plans mutually agreed with customers and the customers have made periodic payments to the Group which follow the progress of completion of the performance obligation, and therefore concludes that there is no significant financing component to these construction contracts in overall.

3. 主要會計判斷及估計 (續)

判斷 (續)

(i) *與客戶簽訂合同之收入 (續)*

(b) *合同中重大融資成分的代價*

本集團為其客戶建設整套生產線。一般而言，建設整套生產線預計在兩年內完成，保養期為一至兩年。在極少情況下，如建設整套生產線的工廠建設推遲，工期可能延長。客戶的信用期通常較短，僅限於合同規定的不同里程碑後的數天內。本集團參照特定履約責任之完成情況(按每份合同截至報告期末已產生成本佔該合同總估計成本之百分比評估)隨時間確認收入。本集團認為整套生產線乃根據與客戶共同協定的施工計劃建造，且客戶已根據履約責任的完成進度定期向本集團付款，因此本集團認為該等建設合同整體不存在重大融資成分。

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3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

(continued)

Judgements (continued)

(ii) Deferred tax liabilities

The Group recognised deferred tax liabilities of HK\$1,273,709,000 (2017: HK\$344,194,000) for all the foreign-invested subsidiaries' undistributed earnings. Under the prevailing income tax law of the PRC and its relevant regulations, dividends paid by PRC enterprises out of profits earned after 31 December 2007 to non-PRC tax resident investors are subject to PRC withholding tax of 10%. A lower withholding tax rate of 5% may be applied if there is a tax treaty between the PRC and the jurisdiction of the foreign investors. The Group in the past was charged with withholding tax at a rate of 5% when those PRC subsidiaries distributed profits to their holding companies outside Mainland China. Therefore, the Group has applied 5% to provide for withholding taxes on retained profits distributable by those subsidiaries established in the Mainland China in respect of their earnings generated from 1 January 2008 in prior years. Pursuant to the <Notice Regarding Certain Issues of "Beneficial Owner" in Tax Treaty> issued by the State Administration of Taxation on 6 February 2018 and effective from 1 April 2018, there are certain adverse factors against the Group to be entitled with a 5% lower withholding tax rate for future distribution of profits based on management's current best estimation, and therefore, the Group has changed to apply the rate of 10% to provide for withholding taxes on retained profits generated from 1 January 2008 in the current period (note 27).

3. 主要會計判斷及估計

(續)

判斷(續)

(ii) 遞延稅項負債

本集團就所有海外投資附屬公司的未分配盈利確認遞延稅項負債1,273,709,000港元(二零一七年: 344,194,000港元)根據中國現行所得稅法及其相關規定,於二零零七年十二月三十一日以後中國企業以所賺取溢利派付予非中國稅務居民投資者的股息,須按10%稅率繳納中國預扣稅。倘中國與境外投資者所在的司法權區有稅務條約,則可採用較低的5%預扣稅率。本集團過去在中國附屬公司向中國境外控股公司分派溢利時,按5%支銷預扣稅。因此,於過往年度本集團就於中國內地成立的附屬公司自二零零八年一月一日起產生的盈利按其可分配保留溢利,按5%作預扣稅撥備。根據國家稅務總局於二零一八年二月六日頒佈並於二零一八年四月一日生效的《關於稅收協定中「受益所有人」有關問題的公告》,按照管理層現時最佳估計,存在若干有礙本集團就未來溢利分配享有5%的較低預扣稅稅率的不利因素。因此,本集團就自二零零八年一月一日起產生的保留溢利,於本期改為按10%作預扣稅撥備(附註27)。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

(continued)

Judgements *(continued)*

(iii) Operating segment

The Group currently has certain business units based on their products and services to be provided to the customers and each business unit is identified as an operating segment. Among these operating segments, certain operating segments have similar economic characteristics, including the nature of the products and services to be provided, the nature of the production processes, etc. Therefore, the business units could be aggregated into a single operating segment. As at 31 December 2018, there are two aggregated operating segments which are the Manufacturing segment and Downstream segment. Each of the aggregated operating segments meets the quantitative thresholds to be identified as reportable segments. Further details are given in note 4 to the consolidated financial statements.

3. 主要會計判斷及估計

(續)

判斷 *(續)*

(iii) 經營分部

本集團目前按彼等之產品及向客戶提供服務有若干業務單位，各業務單位識別為經營分部。於該等經營分部中，由於若干經營分部有同類經濟特性，包括產品之性質及提供之服務、生產過程性質等。因此，該等業務單位將會合併為單一經營分部。於二零一八年十二月三十一日，本集團合共有兩個合併經營分部，其為製造分部及下游分部。各合併經營分部符合被識別為須予報告分部的量化最低要求。進一步詳情載於綜合財務報表附註4。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

(continued)

Estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are described below.

(i) Construction contracts

As further explained in note 2.4 to the consolidated financial statements, the Group's revenue from the construction contracts is recognised over time, by reference to completion of the specific obligation assessed on the basis of the actual costs incurred up to the end of the reporting period as a percentage of total estimated costs for each contract.

Significant judgements are required to estimate the total contract costs, comprising direct materials, the costs of subcontracting, direct labour and an appropriate proportion of variable and fixed construction overheads. Besides, significant assumptions are required to estimate the total contract costs that will affect whether any provision is required for the onerous contract. The estimates are made based on past experience and knowledge of project management.

Actual outcomes in terms of total contract costs may be higher or lower than those estimated at the end of the reporting period, which would affect the revenue and profit recognised in future years.

3. 主要會計判斷及估計

(續)

估計不明朗因素

有關未來之主要假設以及其他於報告期末會為下個財政年度資產與負債賬面值帶來重大調整風險之主要估計不明朗因素描述如下。

(i) 建設合同

誠如綜合財務報表附註2.4所進一步闡釋，本集團參照特定履約責任之完成情況(按每份合同截至報告期末已產生成本佔該合同總估計成本之百分比評估)隨時間確認收入。

估計合同成本總額時須作大量判斷，包括直接物料、分包成本、直接勞工及適當分比之可變及固定施工間接成本等。此外，估計合同成本總額時須作大量假設，將影響到是否須就繁重的合同作任何撥備。此估計乃以過往經驗及項目管理知識為基準而作出。

於報告期末，合同成本總額之實際結果或會高於或低於估計金額，或會影響到未來年度所確認之收益及溢利。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

(continued)

Estimation uncertainty *(continued)*

(ii) *Impairment assessment on property, plant and equipment and intangible assets*

Property, plant and equipment and intangible assets of the Group are reviewed by management for possible impairment when events or changes in an operating environment indicate that the carrying amounts of such assets may not be fully recoverable. In determining the recoverable amounts of these assets, expected cash flows to be generated by the assets are discounted to their present value, which involves significant levels of estimates relating to sales volume, selling prices, manufacturing and other operating costs, terminal value, growth rates and the discount rate. When a decline in an asset's recoverable amount has occurred, the carrying amount is reduced to its estimated recoverable amount. Further details are given in notes 13 and 14 to the consolidated financial statements.

3. 主要會計判斷及估計

(續)

估計不明朗因素 *(續)*

(ii) *物業、廠房及設備及無形資產之減值評估*

倘有事項及經營環境改變而顯示本集團物業、機器及設備及無形資產之賬面值不能全部收回，管理層會檢討該等資產減值之可能性。於釐定此等資產之可收回金額時，須對其銷售量、售價、生產及其他經營成本、最終價值、增長率及貼現率作出大量估計，從而將資產產生之預期現金流量貼現至其現值。倘資產之可收回金額下跌，其賬面值應減少至其估計可收回金額。進一步詳情載於綜合財務報表附註13及14內。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

(continued)

Estimation uncertainty (continued)

(iii) Provision for expected credit losses of trade receivables, contract assets and other receivables

The Group's management determines the provision for impairment of trade receivables (note 17) on a forward-looking basis. The ECL is determined based on the Group's historical loss rates over the expected life of the trade receivables with similar credit risk characteristics and is adjusted for forward-looking estimates. Other receivables (note 19) is considered for 12-month expected credit losses based on consideration of the credit risk stage, the payment term arrangement and subsequent settlement pattern. Contract assets (note 18) will not be transferred to trade receivables unless the construction work are completed and payment milestone is reached pursuant to the construction contracts, which is the time when the Group has unconditional right to receive considerations. The Group assesses that the contract assets have substantially the same risk characteristics as the trade receivables for the same types of contracts. In making the judgement, management considers available reasonable and supportive forward-looking information, such as actual payment received from customers during the subsequent period, actual or expected significant changes in the operating results of customers, actual or expected significant adverse changes in market conditions. At every reporting date, the historical loss rates are updated and changes in the forward-looking estimates are analysed by the Group's management. As at 31 December 2018, the provision for impairment on trade receivables and other receivables were HK\$203,401,000 (2017: HK\$59,473,000) and HK\$12,139,000 (2017: HK\$24,536,000), respectively.

3. 主要會計判斷及估計

(續)

估計不明朗因素(續)

(iii) 貿易應收款項、合同資產及其他應收款項的預期信貸虧損撥備

本集團管理層按前瞻性基準釐定貿易應收款項減值撥備(附註17)。預期信貸虧損乃根據本集團具有類似信貸風險特徵的貿易應收款項於預計年期內的歷史虧損率而釐定，並就前瞻性估計作出調整。其他應收款項(附註19)根據信貸風險階段、支付期限安排及後續結算模式考慮十二個月預期信貸虧損。合同資產(附註18)將不會轉撥至貿易應收款項，惟建設工程完工且已根據建設合同達到支付里程碑的情況除外，屆時，本集團擁有無條件權利收取代價。本集團評估合同資產與同類合同之貿易應收款項具有大致相同的風險特徵。於作出判斷時，管理層考慮可用的合理可靠前瞻資料，例如後續期間自客戶收取的實際付款、客戶經營業績的實際或預期重大變動及市場條件的實際或預期重大不利變動。於各報告日期，本集團管理層將更新歷史虧損率，並分析前瞻估計變動。於二零一八年十二月三十一日，貿易應收款項及其他應收款項的減值撥備分別為203,401,000港元(二零一七年：59,473,000港元)及12,139,000港元(二零一七年：24,536,000港元)。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

(continued)

Estimation uncertainty (continued)

(iv) Impairment assessment and net realisable value of inventories

Inventories of the Group are carried at the lower of cost and net realisable value. Management conducts assessments on the net realisable value of inventories by reference to their age, obsolescence, future usage plan, estimated net selling prices as well as inventory disposal plans. If the actual selling prices of inventories are substantially less than those expected due to an adverse market condition or other factors, an impairment loss on inventories may result. Further details are given in note 16 to the consolidated financial statements.

(v) Income taxes

The Group is subject to income taxes in various jurisdictions. Significant judgement is required in determining the provision for income taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. The Group recognises liabilities for anticipated tax based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provision in the period in which such determination is made.

Recognition of deferred tax assets, which related to tax losses and deductible temporary differences, depends on management's expectation of future taxable profits that will be available against which the tax losses or the asset can be utilised. The outcome of their actual utilisation may be different. Further details are given in notes 9 and 27 to the consolidated financial statements

3. 主要會計判斷及估計

(續)

估計不明朗因素(續)

(iv) 存貨之減值評估及可變現淨值

本集團之存貨乃按成本及可變現淨值之較低者列賬。管理層參考存貨之年期、過時程度、未來用途計劃、估算淨售價及存貨出售計劃評估存貨之可變現淨值，並加以恰當調整。倘存貨之實際售價因市場狀況或其他因素遠少於預期，則可能導致存貨減值虧損。進一步詳情載於綜合財務報表附註16內。

(v) 所得稅

本集團須繳納各個司法權區之所得稅。在確定所得稅之撥備時，本集團須作出重大判斷。在正常業務過程中，有許多交易及計算均難以明確作出最終之稅務釐定。本集團根據有否額外稅項將到期之估計確認預計稅項負債。倘若該等事宜之最終稅務結果與初始記錄金額不同，則有關差額將影響落實稅項結果期間之所得稅及遞延稅項撥備。

確認有關稅項虧損及可扣稅暫時差額的遞延稅項資產視乎管理層預期日後可能有應課稅利潤可動用稅項虧損或資產。其實際動用結果可能有所不同。進一步詳情載於綜合財務報表附註9及27內。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

4. OPERATING SEGMENT INFORMATION

The Group identifies operating segments and prepares segment information based on the regular internal financial information reported to the executive directors for their decisions about resource allocation to the Group's business components and for their review of the performance of those components. The business components in the internal financial information reported to the executive directors are determined according to the Group's major product and service lines.

For management purposes, the Group is organised into business units based on their products and services and has two reportable operating segments as follows:

- construction of turnkey production lines for the manufacture of both amorphous silicon-based and **CIGS** thin-film solar photovoltaic modules and the technological development and production of **GaAs** thin-film power turnkey production lines ("**Manufacturing**");
- construction of solar farms, rooftop power stations, household systems, small to medium-sized enterprises ("**SME**") commercial systems etc., and sale of power stations, operation of rooftop power stations, sale of solar photovoltaic modules, application products and electricity, and provision of engineering service ("**Downstream**")

Management monitors the results of the Group's operating segments separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on reportable segment profit or loss, which is a measure of adjusted profit or loss before tax. The adjusted profit or loss before tax is measured consistently with the Group's profit before tax except that certain of the interest income and head office and corporate expenses are excluded from such measurement.

4. 經營分部資料

本集團根據向執行董事呈報以供彼等就分配資源至本集團業務部分及審核該等部分表現作出決定之定期內部財務資料識別經營分部及編製分部資料。向執行董事呈報之內部財務資料內之業務部分乃按本集團主要產品及服務類別釐定。

就管理目的而言，本集團根據其產品及服務組織業務單位，並有兩個可呈報經營分部如下：

- 建設矽基及銅銦鎵碲薄膜太陽能光伏組件整套生產線及碲化鎵薄膜發電整套生產線技術開發及生產（「**製造**」）；
- 建造太陽能地面電站、屋頂電站、戶用系統、中小企商用系統等，並銷售電站、經營屋頂電站、銷售太陽能光伏組件、應用產品及電力，及提供工程服務（「**下游**」）

管理層獨立監察本集團經營分部之業績以作出有關資源分配及評估分部表現之決定。分部表現乃根據可呈報分部溢利或虧損（即經調整稅前溢利或虧損計量基準）而評估。經調整稅前溢利之計量方式與本集團之除稅前溢利之計算方式貫徹一致，惟該計量不包括若干利息收入及總辦事處及企業開支。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

4. OPERATING SEGMENT INFORMATION

(continued)

Segment assets exclude deferred tax assets, equity investments at fair value through other comprehensive income, and other unallocated head office and corporate assets as these assets are managed on a group basis.

Segment liabilities exclude deferred tax liabilities and other unallocated head office and corporate liabilities as these liabilities are managed on a group basis.

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

4. 經營分部資料(續)

分部資產不包括遞延稅項資產、按公平值計入其他全面收益之權益投資及其他未分配總辦事處及企業資產，原因是該等資產乃集體管理。

分部負債不包括遞延稅項負債及其他未分配總辦事處及企業負債，原因是該等負債乃集體管理。

分部間銷售乃參考按當時之現行市價銷售予第三方所使用之銷售價進行交易。

Year ended 31 December 2018	截至二零一八年 十二月三十一日止年度	Manufacturing 製造 HK\$'000 千港元	Downstream 下游 HK\$'000 千港元	Total 合計 HK\$'000 千港元
Segment Revenue (note 5)	分部收入(附註5)			
Sales to external customers	向外部客戶銷售	19,551,539	1,700,233	21,251,772
Segment Results	分部業績	10,329,707	(2,651,401)	7,678,306
Including:	包括:			
Interest income	利息收入	8,527	26,128	34,655
Finance costs	財務費用	(31,846)	(6,380)	(38,226)
Research and development costs	研發成本	(865,891)	(184,527)	(1,050,418)
<i>Reconciliation of segment results:</i> 分部業績對賬:				
Segment results	分部業績			7,678,306
Interest income	利息收入			37,267
Unallocated other income and gains	未分配其他收入及收益			10,057
Finance costs	財務費用			(3,623)
Corporate and other unallocated expenses	企業及其他未分配費用			(151,511)
Profit before tax	稅前溢利			7,570,496

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

4. OPERATING SEGMENT INFORMATION

(continued)

4. 經營分部資料(續)

As at 31 December 2018	於二零一八年 十二月三十一日	Manufacturing 製造 HK\$'000 千港元	Downstream 下游 HK\$'000 千港元	Total 合計 HK\$'000 千港元
Segment Assets	分部資產	29,483,927	3,739,099	33,223,026
<i>Reconciliation:</i>	<i>對賬:</i>			
Elimination of intersegment receivables	對銷分部間應收款項			(3,375,405)
Equity investments at fair value through other comprehensive income	按公平值計入其他全面收益之權益投資			63,058
Deferred tax assets	遞延稅項資產			30,810
Corporate and other unallocated assets	企業及其他未分配資產			153,218
Total assets	資產總額			30,094,707
Segment Liabilities	分部負債	14,381,438	3,795,159	18,176,597
<i>Reconciliation:</i>	<i>對賬:</i>			
Elimination of intersegment payables	對銷分部間應付款項			(3,375,405)
Deferred tax liabilities	遞延稅項負債			1,975,262
Corporate and other unallocated liabilities	企業及其他未分配負債			146,876
Total liabilities	負債總額			16,923,330

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

4. OPERATING SEGMENT INFORMATION

(continued)

4. 經營分部資料(續)

Year ended 31 December 2018	截至二零一八年 十二月三十一日止年度	Manufacturing 製造 HK\$'000 千港元	Downstream 下游 HK\$'000 千港元	Total 合計 HK\$'000 千港元
Other Segment Information	其他分部資料			
Reversal of impairment of trade receivables	貿易應收款項之減值撥回	-	(54,168)	(54,168)
Impairment of trade receivables	貿易應收款項減值	-	192,701	192,701
Write-down of inventories to net realisable value	將存貨撇減至可變現淨值	38,684	93,275	131,959
Reversal of inventories provision	存貨撥備撥回	(32,624)	-	(32,624)
Reversal of impairment of other receivable	其他應收款項減值撥回	-	(11,684)	(11,684)
Impairment of property, plant and equipment	物業、廠房及設備減值	-	53,933	53,933
Depreciation and amortisation	折舊及攤銷	55,639	60,111	115,750
<i>Reconciliation:</i>	<i>對賬:</i>			
Corporate and other unallocated depreciation and amortisation	企業及其他未分配折舊及攤銷			488
Total depreciation and amortisation	折舊及攤銷總額			116,238
Capital expenditure *	資本開支*	328,000	236,199	564,199
<i>Reconciliation:</i>	<i>對賬:</i>			
Corporate and other unallocated capital expenditure	企業及其他未分配資本開支			1,893
Total capital expenditure	資本開支總額			566,092

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

* 資本開支包括添置物業、廠房及設備及無形資產。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

4. OPERATING SEGMENT INFORMATION

(continued)

4. 經營分部資料(續)

Year ended 31 December 2017	截至二零一七年 十二月三十一日止年度	Manufacturing 製造 HK\$'000 千港元	Downstream 下游 HK\$'000 千港元	Total 合計 HK\$'000 千港元
Segment Revenue	分部收入			
Sales to external customers	向外部客戶銷售	4,241,755	1,905,630	6,147,385
Segment Results	分部業績	1,477,711	(965,260)	512,451
Including:	包括:			
Interest income	利息收入	6,177	2,130	8,307
Finance costs	財務費用	(53,112)	(6,227)	(59,339)
Research and development costs	研發成本	(569,910)	(51,768)	(621,678)
<i>Reconciliation of segment results:</i>	<i>分部業績對賬:</i>			
Segment results	分部業績			512,451
Interest income	利息收入			19,732
Unallocated other income and gains	未分配其他收入及收益			55
Corporate and other unallocated expenses	企業及其他未分配費用			(86,114)
Profit before tax	稅前溢利			446,124

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

4. OPERATING SEGMENT INFORMATION

(continued)

4. 經營分部資料(續)

As at 31 December 2017	於二零一七年 十二月三十一日	Manufacturing 製造 HK\$'000 千港元	Downstream 下游 HK\$'000 千港元	Total 合計 HK\$'000 千港元
Segment Assets	分部資產	16,898,967	5,328,399	22,227,366
<i>Reconciliation:</i>	<i>對賬:</i>			
Elimination of intersegment receivables	對銷分部間應收款項			(2,848,995)
Available-for-sale financial investments	可供出售金融投資			66,097
Corporate and other unallocated assets	企業及其他未分配資產			124,698
Total assets	資產總額			19,569,166
Segment Liabilities	分部負債	8,433,987	5,327,729	13,761,716
<i>Reconciliation:</i>	<i>對賬:</i>			
Elimination of intersegment payables	對銷分部間應付款項			(2,848,995)
Deferred tax liabilities	遞延稅項負債			478,048
Corporate and other unallocated liabilities	企業及其他未分配負債			70,595
Total liabilities	負債總額			11,461,364

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

4. OPERATING SEGMENT INFORMATION

(continued)

4. 經營分部資料(續)

Year ended 31 December 2017	截至二零一七年 十二月三十一日止年度	Manufacturing 製造 HK\$'000 千港元	Downstream 下游 HK\$'000 千港元	Total 合計 HK\$'000 千港元
Other Segment Information	其他分部資料			
Reversal of impairment of trade receivables	貿易應收款項之減值撥回	-	(1,399)	(1,399)
Impairment of property, plant and equipment	物業、廠房及設備減值	-	45,522	45,522
Impairment of trade receivables	貿易應收款項減值	-	934	934
Write-down of inventories to net realisable value	存貨撇減至可變現淨值	39,170	34,612	73,782
Reversal of inventory provision	存貨撥備撥回	(9,661)	(1,213)	(10,874)
Depreciation and amortisation	折舊及攤銷	22,231	45,410	67,641
<i>Reconciliation:</i>	<i>對賬:</i>			
Corporate and other unallocated depreciation and amortisation	企業及其他未分配折舊及攤銷			396
Total depreciation and amortisation	折舊及攤銷總額			68,037
Capital expenditure*	資本開支*	128,293	26,523	154,816
<i>Reconciliation:</i>	<i>對賬:</i>			
Corporate and other unallocated capital expenditure	企業及其他未分配資本開支			41
Total capital expenditure	資本開支總額			154,857

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

* 資本開支包括添置物業、廠房及設備及無形資產。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

4. OPERATING SEGMENT INFORMATION

(continued)

Geographical information

(a) Revenue from external customers

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Mainland China	中國內地	21,148,504	6,110,236
United Kingdom	英國	1,801	1,551
United States	美國	40,597	30,355
Europe	歐洲	56,152	4,234
Others	其他	4,718	1,009
		21,251,772	6,147,385

The revenue information above is based on the locations to which the goods were delivered or the services were provided.

上文之收入資料乃根據交付貨品或提供服務之所在地呈列。

(b) Non-current assets

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Mainland China	中國內地	494,615	315,213
United States	美國	537,807	365,272
Hong Kong	香港	1,962	566
United Kingdom	英國	6,742	10,254
Others	其他	13,592	15,039
		1,054,718	706,344

The non-current asset information above is based on the locations of the assets and exclude equity instruments at fair value through other comprehensive income and deferred tax assets.

上文之非流動資產資料乃根據資產之所在地呈列，且不包括按公平值計入其他全面收益之股本工具以及遞延稅項資產。

4. 經營分部資料(續)

地區資料

(a) 來自外來客戶之收入

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Mainland China	中國內地	21,148,504	6,110,236
United Kingdom	英國	1,801	1,551
United States	美國	40,597	30,355
Europe	歐洲	56,152	4,234
Others	其他	4,718	1,009
		21,251,772	6,147,385

上文之收入資料乃根據交付貨品或提供服務之所在地呈列。

(b) 非流動資產

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Mainland China	中國內地	494,615	315,213
United States	美國	537,807	365,272
Hong Kong	香港	1,962	566
United Kingdom	英國	6,742	10,254
Others	其他	13,592	15,039
		1,054,718	706,344

上文之非流動資產資料乃根據資產之所在地呈列，且不包括按公平值計入其他全面收益之股本工具以及遞延稅項資產。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

4. OPERATING SEGMENT INFORMATION

(continued)

Information about major customers

2018

Revenue of HK\$3,077,441,000 was derived from sales by the Manufacturing segment to Shenzhen Tong Fu Shidai Trading Co., Ltd.

2017

Revenue of HK\$2,463,821,000 was derived from sales by the Manufacturing segment to Shandong Zibo Hanergy Thin Film Power Ltd.

Revenue of HK\$1,262,618,000 was derived from sales by the Manufacturing segment to Jingzhou Shunbai Solar Power Company Limited.

4. 經營分部資料(續)

有關主要客戶之資料

二零一八年

收入3,077,441,000港元乃來自製造分部向深圳市同富時代貿易有限公司進行銷售。

二零一七年

收入2,463,821,000港元乃來自製造分部向山東淄博漢能薄膜發電有限公司進行銷售。

收入1,262,618,000港元乃來自製造分部向荊州順佰太陽能電力有限公司進行銷售。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

5. REVENUE FROM CONTRACTS WITH CUSTOMERS

(i) Disaggregated revenue information

Set out below is the disaggregation of the Group's revenue from contracts with customers and the reconciliation with the amounts disclosed in the segment information:

Year ended 31 December 2018	截至二零一八年十二月三十一日止年度	Manufacturing 製造 HK\$'000 千港元	Downstream 下游 HK\$'000 千港元	Total 總計 HK\$'000 千港元
Segments	分部			
Type of goods or services	貨品或服務類別			
Contract revenue of turnkey production lines	整套生產線合同收入	19,510,942	-	19,510,942
Contract revenue of solar power stations and poverty alleviation projects	太陽能電站及扶貧項目合同收入	-	536,809	536,809
Sale of solar photovoltaic panels	銷售太陽能光伏電池板	40,597	514,218	554,815
Sale of rooftop solar power systems	銷售屋頂太陽能系統	-	594,493	594,493
Sale of photovoltaic application products	銷售光伏應用產品	-	28,021	28,021
Sale of electricity	銷售電力	-	26,692	26,692
Total revenue from contracts with customers	與客戶簽訂合同之收入總額	19,551,539	1,700,233	21,251,772

5. 與客戶簽訂合同之收入

(i) 分拆收入資料

下文載列本集團與客戶簽訂合同之收入的分拆及與於分部資料所披露金額之對賬：

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

5. REVENUE FROM CONTRACTS WITH CUSTOMERS (continued)

(i) Disaggregated revenue information (continued)

Year ended 31 December 2018	截至二零一八年十二月三十一日止年度	Manufacturing 製造 HK\$'000 千港元	Downstream 下游 HK\$'000 千港元	Total 總計 HK\$'000 千港元
Segments	分部			
Geographical markets	地區市場			
Mainland China	中國內地	19,510,942	1,637,562	21,148,504
United Kingdom	英國	-	1,801	1,801
United States	美國	40,597	-	40,597
Europe	歐洲	-	56,152	56,152
Others	其他	-	4,718	4,718
Total revenue from contracts with customers	與客戶簽訂合同之收入總額	19,551,539	1,700,233	21,251,772
Timing of revenue recognition	確認收入時間			
Construction contracts delivered over time	隨時間確認已交付建設合同	19,510,942	536,809	20,047,751
Goods or services transferred at a point in time	於某一時點確認已轉讓貨品或服務	40,597	1,163,424	1,204,021
Total revenue from contracts with customers	與客戶簽訂合同之收入總額	19,551,539	1,700,233	21,251,772

5. 與客戶簽訂合同之收入(續)

(i) 分拆收入資料(續)

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

5. REVENUE FROM CONTRACTS WITH CUSTOMERS (continued)

(i) Disaggregated revenue information (continued)

Year ended 31 December 2017

		HK\$'000 千港元
Contract revenue	合同收入	4,845,660
Sale of solar photovoltaic panels	銷售太陽能光伏電池板	62,742
Sale of rooftop power stations	銷售屋頂太陽能電站	1,199,987
Sale of photovoltaic application products	銷售光伏應用產品	7,751
Sale of electricity	銷售電力	31,245
		6,147,385

The following table shows the amounts of revenue recognised in the current reporting period that were included in the contract liabilities at the beginning of the reporting period:

5. 與客戶簽訂合同之收入(續)

(i) 分拆收入資料(續)

截至二零一七年十二月三十一日止年度

	HK\$'000 千港元
Contract revenue	4,845,660
Sale of solar photovoltaic panels	62,742
Sale of rooftop power stations	1,199,987
Sale of photovoltaic application products	7,751
Sale of electricity	31,245
	6,147,385

下表顯示於報告期初計入合同負債中並於本報告期內確認之收入金額：

	2018 二零一八年 HK\$'000 千港元
Revenue recognised that was included in contract liabilities at the beginning of the reporting period:	
Contract revenue of turnkey production lines	2,711,214
Sale of rooftop solar power systems	340,285
	3,051,499

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

5. REVENUE FROM CONTRACTS WITH CUSTOMERS *(continued)*

(ii) Performance obligations

Information about the Group's performance obligations is summarised below:

Construction contracts

The Group conducted various construction contracts both in Manufacturing segment to deliver turnkey production lines for the manufacturing of thin-film solar photovoltaic modules and in Downstream segment to construct a series of solar power stations for certain small to medium-sized enterprises and poverty alleviation projects.

The Group's performance obligation is satisfied over time, as the Group creates or enhances an asset or work in progress that the customer controls as the asset is created or enhanced. The payment is generally due within 3 days to 90 days from the date of billing.

Sale of goods

The Group's sale of goods include sales of solar photovoltaic panels and photovoltaic application products. The performance obligation is satisfied upon delivery of the goods. The payment is generally due within 3 days to 180 days from the date of billing.

5. 與客戶簽訂合同之收入(續)

(ii) 履約責任

有關本集團履約責任之資料概述如下：

建設合同

本集團分別就製造分部及下游分部進行多方面的建設合同，以分別就交付薄膜太陽能光伏組件製造用整套生產線及為若干中小企業建設一系列太陽能電站以及扶貧項目。

隨著本集團創造或提升於有關資產獲創造或提升時由客戶控制之資產或在建工程，本集團於一段時間內履行履約責任。付款一般於由發票日期起計3日至90日到期。

銷售貨品

本集團之銷售貨品包括銷售太陽能光伏電池板及光伏應用產品。履約責任於交付貨品時履行。付款一般於由發票日期起計3日至180日到期。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

5. REVENUE FROM CONTRACTS WITH CUSTOMERS *(continued)*

(ii) Performance obligations *(continued)*

Sales to distributors

The Group sells rooftop solar power systems through distributors. The Group assesses there are two distinct performance obligations for the sales to distributors: (i) the performance obligation of sale of rooftop solar power systems is satisfied upon the delivery of these systems; (ii) the performance obligation of installation service is satisfied upon completion of the installation considering the installation period is very short and limited within 3 to 10 days. The Group usually receives payment in advance from distributors, except for certain distributors with significant amount of transactions, where payment is generally due within 7 days to 14 days from the date of billing.

Sale of electricity

The performance obligation is satisfied upon transmission of electricity to the electricity purchasing companies or provincial grid companies. The payment is generally due within 30 days from delivery.

There are unsatisfied performance obligations resulting from the fixed-price turnkey production lines construction contracts. The aggregated transaction price allocated to these unsatisfied performance obligations as at 31 December 2018 is HK\$37,051,021,000.

There are unsatisfied performance obligations resulting from the fixed-price construction contracts of certain solar power stations and poverty alleviation projects. The aggregated transaction price allocated to these unsatisfied performance obligations as at 31 December 2018 is HK\$351,585,000.

5. 與客戶簽訂合同之收入(續)

(ii) 履約責任(續)

銷售予經銷商

本集團透過經銷商銷售屋頂太陽能系統。本集團評估就銷售予經銷商存有兩項不同的履約責任：(i)銷售屋頂太陽能系統之履約責任於交付該等系統時履行；(ii)由於安裝期極短，限於3至10日內，安裝服務之履約責任於完成安裝時履行。本集團通常自經銷商預先收到款項，若干交易金額龐大之經銷商除外，而付款一般於由發票日期起計7日至14日到期。

銷售電力

履約責任於傳輸電力予購買電力公司或省級電網公司時履行。付款一般於由交付起計30日內。

由於固定價格之整套生產線建設合同，本集團擁有未履行之履約義務。於二零一八年十二月三十一日，分配至該等未履行履約義務之總交易價格為37,051,021,000港元。

由於固定價格之若干太陽能電站及扶貧項目建設合同，本集團擁有未履行之履約義務。於二零一八年十二月三十一日，分配至該等未履行履約義務之總交易價格為351,585,000港元。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

5. REVENUE FROM CONTRACTS WITH CUSTOMERS (continued)

(ii) Performance obligations (continued)

Management expects that the majority of the above disclosed transaction price of these unsatisfied contracts as of 31 December 2018 will be recognised as revenue in 2019 and 2020.

6. OTHER INCOME AND GAINS

An analysis of other income and gains is as follows:

5. 與客戶簽訂合同之收入(續)

(ii) 履約責任(續)

管理層預期，上文所披露該等未履行合同於二零一八年十二月三十一日之交易價格大部分將於二零一九及二零二零年確認為收入。

6. 其他收入及收益

其他收入及收益分析如下：

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Bank interest income (note 8)	銀行利息收入(附註8)	42,008	11,761
Other interest income (note 8)	其他利息收入(附註8)	29,914	16,278
Government grants*	政府補貼*	58,643	11,544
Gain on provision of services	提供服務之收益	65,030	16,378
Gain on sale of spare parts	銷售零部件之收益	9,441	—
Foreign exchange differences, net	匯兌收益，淨額	17,872	—
Others	其他	1,222	20,509
		224,130	76,470

* Government grants are tax refunds, funds for the research and innovation works and the daily operation of the Group's subsidiaries to which the related expenses have already been incurred.

* 政府補貼指就已產生相關開支之本集團附屬公司的研究及創新工作以及日常營運而退回之稅款及資金。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

7. FINANCE COSTS

An analysis of finance costs is as follows:

7. 財務費用

財務費用之分析如下：

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Interest on other borrowings from related parties	應付關聯人士其他借款之利息	6,572	18,534
Interest on other borrowings from unrelated third parties	應付無關聯第三方其他借款之利息	25,107	30,014
Interest on bank borrowings	銀行借貸利息	10,170	10,791
Total interest expenses	利息支出總額	41,849	59,339

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8. PROFIT BEFORE TAX

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

8. 稅前溢利

本集團之稅前溢利已扣除／(計入)下列項目：

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Bank interest income (note 6)	銀行利息收入(附註6)	(42,008)	(11,761)
Other interest income (note 6)	其他利息收入(附註6)	(29,914)	(16,278)
Loss on disposal of subsidiaries	出售附屬公司虧損	-	5,568
Auditors' remuneration	核數師酬金		
Audit service	核數服務	29,367	16,300
Others	其他	13,569	6,470
Amortisation of intangible assets (note 14)	無形資產攤銷(附註14)	7,959	1,489
Depreciation of items of property, plant and equipment (note 13)	物業、廠房及設備項目之折舊(附註13)	108,279	66,548
Employee benefit expenses**:	僱員福利費用**：		
Salaries, allowances and benefits in kind	薪金、津貼及實物利益	1,556,816	816,403
Employment termination benefits included in administrative expenses	僱員離職福利(計入行政費用)	169	18
Pension schemes	退休金計劃	127,692	43,254
Equity-settled share option expenses	以權益結算的股份期權開支	10,233	19,475
Sub-total	小計	1,694,910	879,150

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

8. PROFIT BEFORE TAX (continued)

8. 稅前溢利(續)

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Research and development costs	研發成本	1,050,418	621,678
Foreign exchange (gains)/losses, net (note 6)	匯兌(收益)/損失·淨額 (附註6)	(17,872)	1,802
Impairment of property, plant and equipment* (note 13)	物業·廠房及設備減值* (附註13)	53,933	45,522
Loss on disposal of items of property, plant and equipment*	出售物業·廠房及設備項目 之虧損*	1,400	464
Write-down of inventories to net realisable value	存貨撇減至可變現淨值	131,959	73,782
Reversal of inventories provision	存貨撥備撥回	(32,624)	(10,874)
Impairment of financial and contract assets, net:	金融資產及合同資產之減值· 淨額:		
Impairment of trade receivables (note 17)*	貿易應收款項減值 (附註17)*	192,701	934
Reversal of impairment of trade receivables (note 17)*	貿易應收款項減值撥回 (附註17)*	(54,168)	(1,399)
Reversal of impairment of other receivables (note 19)*	其他應收款項減值撥回 (附註19)*	(11,684)	-
Sub-total	小計	126,849	(465)
Minimum lease payments under operating leases:	經營租賃之最低租金:		
Land and buildings	土地及樓宇	338,589	252,738
Equipment	設備	5,851	3,975
Product warranty provision (note 24(v))	產品保養撥備(附註24(v))	261,609	38,468

* These items are included in "other expenses" on the face of the consolidated statement of profit or loss and other comprehensive income of the Group.

** This item include the directors' and chief executive's remuneration and key management emoluments of the Group. (note 12)

* 該等項目計入本集團綜合損益及其他全面收益表之「其他費用」內。

** 該項包括本集團的董事及主要行政人員薪酬及主要管理人員酬金。(附註12)

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

9. INCOME TAX

The Company is incorporated in Bermuda and conducts its principal activities through its subsidiaries in the PRC and other countries. The Company, under the current laws of Bermuda, is not subject to tax on income or capital gains. The Hong Kong profits tax rate was 16.5% (2017: 16.5%) during the year reported. The Company's Hong Kong subsidiaries have both Hong Kong-sourced and non-Hong Kong-sourced income. The latter is not subject to Hong Kong profits tax and the related expenses are non-tax-deductible. No provision for Hong Kong profits tax was made as such operations did not generate any assessable profits arising in Hong Kong during the year. Furthermore, there are no withholding tax in Hong Kong on the remittance of dividends.

Effective from 1 January 2008, the PRC's statutory corporate income tax ("CIT") rate is 25%. Certain of the Group's subsidiaries in the PRC were designated as "High New Technology Enterprises" and were entitled to a preferential CIT rate of 15%. The Company's other PRC subsidiaries are subject to income tax at 25% on their respective taxable income as calculated in accordance with the CIT Law and its relevant regulations except for Apollo Precision (Kunming) Yuanhong Limited ("**Apollo Kunming**"). In 2013, Apollo Kunming received written confirmations from the local tax bureau that Apollo Kunming was taxed on a deemed profit method based on the deemed profits at the 25% statutory tax rate. The deemed profit was determined at 10% of the sales of Apollo Kunming. The Company's subsidiary in Sweden is subject to income tax at a rate of 22%. The Company's subsidiary in the United Kingdom is subject to income tax at a rate of 19%. The Company's subsidiaries in the United States are subject to income tax at a rate ranging from 27% to 29.84%. The Company's subsidiaries in Germany are subject to corporation tax at a rate of 15.825% and trade tax at rates ranging from 12.6% to 20.3%. Taxes on profits assessable elsewhere have been calculated at the rates of tax prevailing in the jurisdictions in which the Group operates. No provision for income tax was made for the overseas subsidiaries as there were no assessable profits during the year.

9. 所得稅

本公司於百慕達註冊成立，並透過其中國及其他國家附屬公司進行主要業務。根據百慕達之現時法律，於百慕達註冊成立之本公司毋須繳付所得稅或資本收益稅。於呈報年間，香港利得稅率為16.5%（二零一七年：16.5%）。本公司之香港附屬公司均擁有來自香港及非來自香港之收入。後者毋須繳付香港利得稅，而相關開支為不可扣稅。由於該業務於本年度在香港並無產生任何應課稅溢利，故並無就香港利得稅作出撥備。此外，本公司並無就匯返股息之香港預扣稅。

自二零零八年一月一日起生效，中國法定企業所得稅（「**企業所得稅**」）率為25%。本集團若干中國附屬公司獲認定為「**高新技術企業**」，因而可享優惠企業所得稅稅率15%。本公司之其他中國附屬公司須根據企業所得稅法及其相關法規計算按其各自之應課稅收入之25%繳付所得稅，惟昆明鉑陽遠宏能源科技有限公司（「**昆明鉑陽**」）除外。於二零一三年，昆明鉑陽接獲當地稅局之書面確認，昆明鉑陽須根據法定稅率25%就視為溢利按核定利潤方法徵稅。視為溢利按昆明鉑陽之銷售10%釐定。本公司之瑞典附屬公司須按22%繳納所得稅。本公司之英國附屬公司須按19%繳納所得稅。本公司之美國附屬公司須按27%至29.84%繳納所得稅。本公司之德國附屬公司須按15.825%繳納公司稅及按12.6%至20.3%繳納貿易稅。其他地方應課稅溢利之稅項乃按本集團經營所在司法權區實行之稅率計算。由於海外附屬公司並無於本年度或過往年度錄得應課稅溢利，故並無就其作出所得稅撥備。

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

9. INCOME TAX (continued)

Under the prevailing CIT Law and its relevant regulations, any dividends paid by the Company's PRC subsidiaries from their earnings derived after 1 January 2008 to the Company's Hong Kong subsidiary are subject to a 5% or 10%, depending on the applicability of the Sino-Hong Kong tax treaty, PRC dividend withholding tax. For the Group, the historical applicable rate is 5%. Pursuant to the <Notice Regarding Certain Issues of "Beneficial Owner" in Tax Treaty> issued by the State Administration of Taxation on 6 February 2018 and effective from 1 April 2018, there are certain adverse factors against the Group to be entitled with a 5% lower withholding tax rate for future distribution based on management's current best estimation. Accordingly, lack of solid supportive evidence to be entitled with the 5% lower withholding tax rate, the Group has changed to apply 10% in current year to provide for withholding taxes on retained profits generated since 1 January 2008 by its PRC subsidiaries. (note 27)

The major components of income tax expense in the consolidated statement of profit or loss and other comprehensive income are:

9. 所得稅(續)

根據現行企業所得稅法及其相關法規，於二零零八年一月一日後，本公司之中國附屬公司須向本公司之香港附屬公司所派付之任何自其盈利衍生之股息為5%或10%，視乎中港稅收協定中國股息預扣稅之適用情況。就本集團而言，過往適用稅率為5%。根據國家稅務總局於二零一八年二月六日發佈及自二零一八年四月一日生效的《關於稅收協定中「受益所有人」有關問題的公告》，按照管理層現時最佳估計，存在若干有礙本集團就未來派息享有5%的較低預扣稅稅率的若干不利因素。由於並無實質證據支持享有5%的較低預扣稅稅率，本集團就於中國成立的附屬公司自二零零八年一月一日起產生的保留溢利，於本年度改為按10%作預扣稅撥備。(附註27)

綜合損益及其他全面收益表內所得稅開支的主要組成部分為：

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Current tax:	即期稅項：		
The PRC	中國		
Income tax expense for the year	本年度所得稅支出	1,036,764	107,489
Deferred tax charge:	遞延稅項支出：		
Current year (note 27)	本年度(附註27)	1,340,664	77,603
Total tax charge for the year	本年度稅務支出總額	2,377,428	185,092

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

9. INCOME TAX (continued)

A reconciliation of the income tax expense applicable to profit before tax at the PRC statutory tax rate which the Company's majority subsidiaries are domiciled to the income tax expense at the effective tax rate is as follows:

9. 所得稅(續)

按中國(本公司及其大部分附屬公司註冊所在地)之法定稅率計算適用於所得稅前溢利之稅務開支與實際所得稅開支對賬如下:

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Profit before tax	稅前溢利	7,570,496	446,124
Tax at the PRC statutory tax rate	按中國法定稅率計算之稅項	1,892,624	111,531
Effect of differences in international and domestic preferential tax rates	國際準則與當地機關實施之稅率差異之影響	(704,719)	(241,217)
Expenses not deductible for tax	不可扣稅開支	12,730	4,794
Effect of super-deduction on PRC research and development costs	超額扣除對中國研發費用之影響	(33,272)	(8,861)
Deferred tax assets not recognised for impairments and other temporary differences	未確認減值之遞延稅項資產及其他暫時性差異	59,604	41,480
Tax losses not recognised	未確認之稅項虧損	594,127	529,711
PRC dividend withholding tax	中國附屬公司可分派溢利預扣稅	920,371	(51,411)
Utilisation of temporary differences not recognised in prior periods	動用以往期間並無確認之暫時性差異	(358,338)	(200,974)
Others	其他	(5,699)	39
Income tax expense	所得稅開支	2,377,428	185,092

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10. DIVIDEND

The board of directors does not recommend to declare final dividend for the year ended 31 December 2018 (2017: nil).

11. EARNINGS PER SHARE ATTRIBUTABLE TO OWNERS OF THE PARENT

The calculation of the basic earnings per share amount is based on the profit for the year attributable to owners of the parent and the weighted average number of ordinary shares of 42,145,676,000 (2017: 41,866,989,000) in issue during the year.

The Group had share options and subscription rights outstanding which could potentially dilute basic earnings per share in the future. The calculation of the diluted earnings per share amount in 2018 and 2017 is based on the profit for the year attributable to owners of the parent without any adjustment. The weighted average number of ordinary shares used in the calculation is the number of ordinary shares in issue during the year, as used in the calculation of basic earnings per share plus the weighted average number of ordinary shares assumed to have been issued at no consideration on the deemed exercise of subscription rights into ordinary shares. In 2018, no adjustment has been made to the weighted average number of ordinary shares regarding the outstanding options as they had an anti-dilutive effect on the basic earnings per share amount presented.

When calculating the diluted earnings per share, the estimated share prices of 2018 and 2017 were used which was calculated by market value of 100% equity interest of the Company (the “Market Value”) divided by total outstanding shares as at each valuation date. The Market Value was estimated by an independent valuer (the “Valuer”) as the trading of the Company's shares had been suspended since 20 May 2015. The Valuer adopted the market approach, which is basically a comparison method which estimates market value from analysing sales and financial data and ratios of comparable public companies. The Market Value was derived after a discount of lack of marketability.

10. 股息

董事會不建議派發截至二零一八年十二月三十一日止年度之末期股息(二零一七年：無)。

11. 母公司擁有人應佔每股盈利

每股基本盈利之金額乃根據母公司擁有人應佔年度溢利以及年內已發行普通股之加權平均數42,145,676,000股(二零一七年：41,866,989,000股)計算得出。

本集團的未行使購股權及認購權可能對未來的每股基本盈利構成潛在攤薄影響。於二零一八年及二零一七年每股攤薄盈利的金額乃根據母公司擁有人應佔年度溢利計算(不作任何調整)。普通股之加權平均數按照用作計算每股基本盈利的年內已發行普通股數目及假設以零代價視作行使認購權認購普通股予以發行之普通股加權平均數計算；於二零一八年，並未就未行使購股權的普通股加權平均數作出調整，原因是其對所呈列基本每股盈利數額有反攤薄影響。

於計算每股攤薄盈利時，已使用二零一八年及二零一七年之估計股價，乃按本公司100%股權之市值(「市值」)除以各估值日期發行在外之股份總數計算。由於本公司股份自二零一五年五月二十日起一直暫停買賣，市值由一名獨立估值師(「估值師」)作估計。估值師採納市場法，其基本上為一種比較法，通過分析上市公司之銷售與財務數據及比率，估計市場價值。市值乃計入缺乏市場流通性折讓後釐定。

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11. EARNINGS PER SHARE ATTRIBUTABLE TO OWNERS OF THE PARENT (continued)

The calculations of basic and diluted earnings per share are based on:

11. 母公司擁有人應佔每股盈利(續)

每股基本及攤薄盈利乃根據下列項目計算：

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Earnings for the year	本年盈利		
Profit attributable to owners of the parent, for the purpose of basic and diluted earnings per share calculation	以計算每股基本及攤薄盈利為目的之母公司擁有人持有應佔溢利	5,193,017	261,099
		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Shares	股份		
Weighted average number of ordinary shares in issue during the year used in the basic earnings per share calculation	用作計算每股基本盈利之年內已發行普通股加權平均數	42,145,676	41,866,989
Effect of dilution-weighted average number of ordinary shares:	攤薄影響－普通股加權平均數：		
Assumed issue at no consideration on deemed exercise of all share options outstanding during the year	本年度視作行使所有未行使購股權而假設無償發行	-	78,587
Deemed exercise by Hanergy Holding Group Limited ("Hanergy Holding") of all outstanding subscription rights	視作被漢能控股有限公司(「漢能控股」)行使所有未行使認購權	2,530,781	1,831,592
Weighted average number of ordinary shares in issue during the year used in the diluted earnings per share calculation	用作計算每股攤薄盈利之年內已發行普通股加權平均數	44,676,457	43,777,168

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12. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION AND KEY MANAGEMENT EMOLUMENTS

Directors' and chief executive's remuneration for the year is as follows:

12. 董事及主要行政人員薪酬及主要管理人員酬金

本年度各董事及主要行政人員之酬金如下：

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Fees	袍金	3,489	2,342
Other emoluments:	其他酬金：		
Salaries, allowances and benefits in kind	薪金、津貼及實物利益	14,902	13,973
Equity-settled share-based payments	以權益結算的股份支付	257	1,079
Contributions to retirement benefit schemes	退休福利計劃供款	30	75
		15,189	15,127
Total	總額	18,678	17,469

The directors and chief executive represent the key management personnel of the Company.

董事及主要行政人員指本公司主要管理人員。

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12. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION AND KEY MANAGEMENT EMOLUMENTS (continued)

In prior years, certain directors were granted share options, in respect of their services to the Group, under the share option scheme of the Company, further details of which are set out in note 29(b) to the financial statements. The amount of equity settled share-based payments included above is the amount recognised in profit or loss over the vesting period based on fair value of such options at the grant date.

(a) Executive directors and independent non-executive directors

12. 董事及主要行政人員薪酬及主要管理人員酬金(續)

於過往年度，若干董事就彼等對本集團之服務根據本公司購股權計劃獲授購股權，進一步詳情載於財務報表附註29(b)。上述以權益結算的股份支付的金額乃根據授出日該等購股權的公平值於歸屬期內於損益中確認的金額。

(a) 執行董事及獨立非執行董事

		Salaries, allowances and benefits in kind 薪金、津貼及 實物利益 HK\$'000 千港元	Equity-settled share-based payments 以權益結算的 股份支付 HK\$'000 千港元	Contributions to pension schemes 退休福利 計劃供款 HK\$'000 千港元	Total 合計 HK\$'000 千港元
2018	二零一八年				
Executive directors:	執行董事：				
Mr. Yuan Yabin	袁亞彬先生	234	4,310	-	4,551
Dr. Lam Yat Ming Eddie	林一鳴博士	234	4,290	257	4,799
Mr. Wang Xiong (i)	王雄先生(i)	45	207	-	257
Mr. Si Haijian	司海健先生	234	1,766	-	2,000
Mr. Huang Songchun	黃松春先生	234	1,459	-	1,693
Mr. Xu Xiaohua	徐曉華先生	234	1,104	-	1,338
Mr. Zhang Bin	張彬先生	234	1,766	-	2,000
		1,449	14,902	257	16,638
Independent non-executive directors:	獨立非執行董事：				
Mr. Lo Man Tuen	盧文端先生	510	-	-	510
Professor He Xiaofeng	何小鋒教授	510	-	-	510
Professor Zhang Qiusheng	張秋生教授	510	-	-	510
Mr. Wang Dan	王丹先生	510	-	-	510
		2,040	-	-	2,040
Total emoluments for the year 2018	二零一八年酬金總額	3,489	14,902	257	18,678

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12. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION AND KEY MANAGEMENT EMOLUMENTS (continued)

(a) Executive directors and independent non-executive directors (continued)

		Fees	Salaries, allowances and benefits in kind	Equity-settled share-based payments	Contributions to pension schemes	Total
		袍金	薪金、津貼及實物利益	以權益結算的股份支付	退休福利計劃供款	合計
		HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000
		千港元	千港元	千港元	千港元	千港元
2017	二零一七年					
Executive directors:	執行董事：					
Mr. Yuan Yabin	袁亞彬先生	234	3,167	-	39	3,440
Dr. Lam Yat Ming Eddie	林一鳴博士	234	4,290	259	18	4,801
Mr. Wang Xiong	王雄先生	234	1,066	-	18	1,318
Mr. Si Haijian	司海健先生	234	1,766	820	-	2,820
Mr. Huang Songchun	黃松春先生	234	884	-	-	1,118
Mr. Xu Xiaohua	徐曉華先生	234	1,034	-	-	1,268
Mr. Zhang Bin	張彬先生	234	1,766	-	-	2,000
		1,638	13,973	1,079	75	16,765
Independent non-executive directors:	獨立非執行董事：					
Ms. Zhao Lan	趙嵐女士	97	-	-	-	97
Mr. Wang Tongbo	王同渤先生	97	-	-	-	97
Professor Xu Zheng	徐征教授	97	-	-	-	97
Dr. Wang Wenjing	王文靜博士	97	-	-	-	97
Mr. Lo Man Tuen	盧文端先生	79	-	-	-	79
Professor He Xiaofeng	何小鋒教授	79	-	-	-	79
Professor Zhang Qiusheng	張秋生教授	79	-	-	-	79
Mr. Wang Dan	王丹先生	79	-	-	-	79
		704	-	-	-	704
Total emoluments for the year 2017	二零一七年酬金總額	2,342	13,973	1,079	75	17,469

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12. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION AND KEY MANAGEMENT EMOLUMENTS (continued)

(a) Executive directors and independent non-executive directors (continued)

- (i) Mr. Wang Xiong resigned as an executive director and vice chairman of the board of directors with effect from 15 March 2018.

No emolument was paid by the Group to any director as an inducement to join or upon joining the Group, or as compensation for loss of office during the year ended 31 December 2018 (2017: Nil).

There was no arrangement under which a director waived or agreed to waive any remuneration during the year ended 31 December 2018 (2017: Nil).

(b) Five highest paid individuals

The five individuals whose emoluments were the highest in the Group for the year included two (2017: two) directors whose emoluments are included in the analysis presented above. The emoluments payable to the remaining three (2017: three) individuals during the year are as follows:

12. 董事及主要行政人員薪酬及主要管理人員酬金(續)

(a) 執行董事及獨立非執行董事(續)

- (i) 王雄先生已辭任本公司的執行董事兼副主席，由二零一八年三月十五日起生效。

截至二零一八年十二月三十一日止年度，本集團概無向任何董事支付酬金，以吸引彼等加入本集團或於加入本集團時作為報酬，或作為離職補償(二零一七年：無)。

截至二零一八年十二月三十一日止年度並無作出董事放棄或同意放棄收取任何酬金之安排(二零一七年：無)。

(b) 五名最高薪酬人士

於本年度，本集團五名最高薪酬人士包括兩名(二零一七年：兩名)董事及主要行政人員，其酬金已載於上文分析。年內應付餘下三名(二零一七年：三名)人士之酬金如下：

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Salaries and other emoluments	薪金及其他酬金	8,350	8,848
Discretionary bonuses	酌情花紅	5,212	2,238
Equity-settled share-based payments	以權益結算的股份支付	-	461
Contributions to pension schemes	退休福利計劃供款	118	125
Total	總額	13,680	11,672

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12. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION AND KEY MANAGEMENT EMOLUMENTS (continued)

(b) Five highest paid individuals (continued)

No emolument was paid by the Group to any top five highest paid individuals as an inducement to join or upon joining the Group, or as compensation for loss of office during the year ended 31 December 2018 (2017: Nil).

The number of non-director and non-chief-executive, highest paid employees whose remuneration fell within the following bands is as follows:

12. 董事及主要行政人員薪酬及主要管理人員酬金(續)

(b) 五名最高薪酬人士(續)

截至二零一八年十二月三十一日止年度，本集團概無向任何五名最高薪酬人士支付酬金，以吸引彼等加入本集團或於加入本集團時作為報酬，或作為離職補償(二零一七年：無)。

酬金介乎以下範圍之非董事及非主要行政人員、最高薪酬僱員人數如下：

		Number of employees 僱員人數	
		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
HK\$3,000,001 to HK\$3,500,000	3,000,001港元至 3,500,000港元	–	1
HK\$3,500,001 to HK\$4,000,000	3,500,001港元至 4,000,000港元	1	1
HK\$4,000,001 to HK\$4,500,000	4,000,001港元至 4,500,000港元	1	–
HK\$4,500,001 to HK\$5,000,000	4,500,001港元至 5,000,000港元	–	1
HK\$5,000,001 to HK\$5,500,000	5,000,001港元至 5,500,000港元	–	–
HK\$5,500,001 to HK\$6,000,000	5,500,001港元至 6,000,000港元	1	–
		3	3

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13. PROPERTY, PLANT AND EQUIPMENT

13. 物業、廠房及設備

		Land and buildings 土地及樓宇 HK\$'000 千港元	Construction in progress 在建工程 HK\$'000 千港元	Plant and machinery 廠房及機器 HK\$'000 千港元	Leasehold improvements, furniture, fixtures and equipment 租賃物業裝修、傢俬、裝置及設備 HK\$'000 千港元	Motor vehicles 汽車 HK\$'000 千港元	Total 合計 HK\$'000 千港元
31 December 2018	二零一八年十二月三十一日						
At 1 January 2018:	於二零一八年一月一日:						
Cost	成本	68,708	422,921	869,537	540,962	21,998	1,924,126
Accumulated depreciation and impairment	累計折舊及減值	(68,708)	(293,581)	(589,857)	(371,974)	(18,704)	(1,342,824)
Net carrying amount	賬面淨值	-	129,340	279,680	168,988	3,294	581,302
At 1 January 2018, net of accumulated depreciation and impairment	於二零一八年一月一日，扣除累計折舊及減值	-	129,340	279,680	168,988	3,294	581,302
Additions	添置	-	175,300	144,049	192,478	3,929	515,756
Disposals	出售	-	(1,066)	(161)	(1,032)	(1,876)	(4,135)
Transfer	轉撥	-	(59,339)	36,434	22,905	-	-
Other transfer out	其他轉出	-	(3,666)	(1,044)	-	-	(4,710)
Depreciation provided during the year	年內折舊撥備	-	-	(42,808)	(64,621)	(850)	(108,279)
Impairment	減值	-	-	(53,933)	-	-	(53,933)
Exchange realignment	匯兌調整	-	(3,475)	(11,148)	(6,618)	(141)	(21,382)
At 31 December 2018, net of accumulated depreciation and impairment	於二零一八年十二月三十一日，扣除累計折舊及減值	-	237,094	351,069	312,100	4,356	904,619
At 31 December 2018:	於二零一八年十二月三十一日:						
Cost	成本	68,708	530,675	1,037,667	748,695	23,910	2,409,655
Accumulated depreciation and impairment	累計折舊及減值	(68,708)	(293,581)	(686,598)	(436,595)	(19,554)	(1,505,036)
Net carrying amount	賬面淨值	-	237,094	351,069	312,100	4,356	904,619

Impairment of HK\$52,027,000 and HK\$1,906,000 have been recognised for two self-owned solar power plants included in "plant and machinery" in the Downstream segment for the year ended 31 December 2018. The solar power plants were loss making for the year ended 31 December 2018. This indicated that the carrying amount of the solar power plants may be less than their recoverable amounts as at 31 December 2018. The recoverable amounts of HK\$13,873,000 and HK\$6,755,000 were determined by the directors of the Company, based on value-in-use calculations covering a detailed 5-year budget plan with extrapolated forecasts for the remaining useful lives of the core assets of the solar power plants without any growth rate being considered. The pre-tax discount rate applied to the cash flow projections is 9%.

截至二零一八年十二月三十一日止年度，已就下游分部「廠房及機器」下所列的兩間自有太陽能電廠確認減值52,027,000港元及1,906,000港元。該等太陽能電廠於截至二零一八年十二月三十一日止年度錄得虧損。這顯示該等太陽能電廠的賬面值可能低於其於二零一八年十二月三十一日的可收回金額。可收回金額13,873,000港元及6,755,000港元乃由本公司董事根據5年詳細預算規劃按使用價值計算釐定，並考慮對並無任何增長率的太陽能電廠核心資產之餘下可使用年期的推斷預測。現金流量預測適用之稅前貼現率為9%。

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13. PROPERTY, PLANT AND EQUIPMENT

(continued)

13. 物業、廠房及設備(續)

		Land and buildings 土地及樓宇 HK\$'000 千港元	Construction in progress 在建工程 HK\$'000 千港元	Plant and machinery 廠房及機器 HK\$'000 千港元	Leasehold improvements, furniture, fixtures and equipment 租賃物業裝修、傢俬、裝置及設備 HK\$'000 千港元	Motor vehicles 汽車 HK\$'000 千港元	Total 合計 HK\$'000 千港元
31 December 2017	二零一七年十二月三十一日						
At 1 January 2017:	於二零一七年一月一日:						
Cost	成本	68,708	447,175	774,060	523,108	23,814	1,836,865
Accumulated depreciation and impairment	累計折舊及減值	(68,708)	(253,853)	(559,074)	(331,233)	(17,886)	(1,230,754)
Net carrying amount	賬面淨值	-	193,322	214,986	191,875	5,928	606,111
At 1 January 2017, net of accumulated depreciation and impairment	於二零一七年一月一日，扣除累計折舊及減值	-	193,322	214,986	191,875	5,928	606,111
Additions	添置	-	115,948	2,792	11,377	1,051	131,168
Disposal of a subsidiary	出售一間附屬公司	-	-	-	(600)	(3,130)	(3,730)
Disposals	出售	-	(1,393)	(2,213)	(2,637)	(59)	(6,302)
Transfer	轉撥	-	(68,056)	68,056	-	-	-
Other transfer in	其他轉入	-	-	7,048	-	-	7,048
Other transfer out	其他轉出	-	(78,042)	-	-	-	(78,042)
Depreciation provided during the year	年內折舊撥備	-	-	(24,989)	(40,741)	(818)	(66,548)
Impairment	減值	-	(39,728)	(5,794)	-	-	(45,522)
Exchange realignment	匯兌調整	-	7,289	19,794	9,714	322	37,119
At 31 December 2017, net of accumulated depreciation and impairment	於二零一七年十二月三十一日，扣除累計折舊及減值	-	129,340	279,680	168,988	3,294	581,302
At 31 December 2017:	於二零一七年十二月三十一日:						
Cost	成本	68,708	422,921	869,537	540,962	21,998	1,924,126
Accumulated depreciation and impairment	累計折舊及減值	(68,708)	(293,581)	(589,857)	(371,974)	(18,704)	(1,342,824)
Net carrying amount	賬面淨值	-	129,340	279,680	168,988	3,294	581,302

An impairment of HK\$5,794,000 has been recognised for a self-owned solar power plant included in "plant and machinery" in the Downstream segment for the year ended 31 December 2017. The solar power plant was loss-making for the year ended 31 December 2017. This indicated that the carrying amount of the solar power plant may be less than its recoverable amount as at 31 December 2017. The recoverable amount of HK\$10,254,000 was determined by the directors of the Company, based on value-in-use calculations covering a detailed 5-year budget plan with extrapolated forecasts for the remaining useful lives of the core assets of the solar power plant without any growth rate being considered. The pre-tax discount rate applied to the cash flow projections was 9%.

截至二零一七年十二月三十一日止年度，已就下游分部「廠房及機器」下所列的自有太陽能電廠確認減值5,794,000港元。該太陽能電廠於截至二零一七年十二月三十一日止年度錄得虧損。這顯示該太陽能電廠的賬面值可能低於其於二零一七年十二月三十一日的可收回金額。可收回金額10,254,000港元乃由本公司董事根據5年詳細預算規劃按使用價值計算釐定，並考慮對並無任何增長率的太陽能電廠核心資產之餘下可使用年期的推斷預測。現金流量預測適用之稅前貼現率為9%。



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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

13. PROPERTY, PLANT AND EQUIPMENT

(continued)

An impairment of HK\$39,728,000 had been recognised for certain assets included in “construction in progress” in the Downstream segment for the year ended 31 December 2017. These assets were in obsolescence or physical damage and their economic performances were expected to be worse than originally planned in the foreseeable future. These indicated that the carrying amount of the assets may be less than their recoverable amount as at 31 December 2017. The recoverable amount was determined by the directors of the Company, based on the fair value less costs of disposal of each individual asset which was assessed as nil. All these assets are fully impaired as at 31 December 2017.

13. 物業、廠房及設備(續)

截至二零一七年十二月三十一日止年度，已就下游分部「在建工程」下所列的若干資產確認減值39,728,000港元。該等資產已陳舊或損壞，其經濟表現預期在可見將來會遜於原定計劃。這顯示該等資產的賬面值可能低於其於二零一七年十二月三十一日的可收回金額。可收回金額評估為零，乃由本公司董事按每項個別資產之公平值減出售成本釐定。於二零一七年十二月三十一日，所有該等資產已悉數減值。

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14. INTANGIBLE ASSETS

14. 無形資產

		Technology know-how and software 技術知識 及軟件 HK\$'000 千港元	Total 合計 HK\$'000 千港元
31 December 2018	二零一八年 十二月三十一日		
Cost at 1 January 2018, net of accumulated amortisation and impairment	於二零一八年一月一日 按成本值， 扣除累計攤銷及減值	35,467	35,467
Additions	添置	50,336	50,336
Amortisation provided during the year	年內攤銷撥備	(7,959)	(7,959)
Exchange realignment	匯兌調整	(5,119)	(5,119)
At 31 December 2018	於二零一八年 十二月三十一日	72,725	72,725
At 31 December 2018:	於二零一八年 十二月三十一日：		
Cost	成本	1,691,845	1,691,845
Accumulated amortisation and impairment	累計攤銷及減值	(1,619,120)	(1,619,120)
Net carrying amount	賬面淨值	72,725	72,725
31 December 2017	二零一七年 十二月三十一日		
Cost at 1 January 2017, net of accumulated amortisation and impairment	於二零一七年一月一日 按成本值， 扣除累計攤銷及減值	12,685	12,685
Additions	添置	6,103	6,103
Acquisition of a subsidiary	收購一間附屬公司	17,586	17,586
Disposals	出售	(1,983)	(1,983)
Amortisation provided during the year	年內攤銷撥備	(1,489)	(1,489)
Exchange realignment	匯兌調整	2,565	2,565
At 31 December 2017	於二零一七年 十二月三十一日	35,467	35,467
At 31 December 2017:	於二零一七年 十二月三十一日：		
Cost	成本	1,641,509	1,641,509
Accumulated amortisation and impairment	累計攤銷及減值	(1,606,042)	(1,606,042)
Net carrying amount	賬面淨值	35,467	35,467

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15. EQUITY INVESTMENTS DESIGNATED AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME/AVAILABLE-FOR-SALE FINANCIAL INVESTMENTS

15. 指定為按公平值計入其他全面收益之權益投資／可供出售金融投資

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Equity investments designated at fair value through other comprehensive income	指定為按公平值計入其他全面收益之權益投資		
Unlisted equity investments, at fair value	非上市權益投資，按公平值		
Changde Thin Film Solar Technology Co., Ltd.	常德漢能太陽能薄膜技術有限公司	59,064	-
Hezheng Mobile Energy Technology (Beijing) Co., Ltd.	禾正移動能源科技(北京)有限公司	2,852	-
Shenzhen Zhong Yi Xingye Investment Co., Ltd.	深圳市中益興業投資有限公司	571	-
Shenzhen Tong Fu Shidai Trading Co., Ltd.	深圳市同富時代貿易有限公司	571	-
		63,058	-
Available-for-sale financial investments	可供出售金融投資		
Unlisted equity investments, at cost	非上市權益投資，按成本	-	66,097

Equity instruments designated at fair value through other comprehensive income include investments in equity shares of unlisted companies. The Group holds non-controlling interests (between 0.04% and 8.4%) in these companies. These investments were irrevocably designated at fair value through other comprehensive income as the Group considers these investments to be strategic in nature. Since these investees were still under the construction phase without any operation since the Group has invested in, their fair values approximated to their costs as at 31 December 2018 without any fair value changes being recognised for the year ended 31 December 2018. All the investments at fair value through other comprehensive income are denominated in RMB.

指定為按公平值計入其他全面收益之權益投資包括非上市公司股權之投資。本集團於該等公司持有非控股權益(介乎0.04%至8.4%)。由於本集團認為該等投資屬戰略性質，該等投資不可撤回地指定為按公平值計入其他全面收益。由於該等被投資方自本集團作出投資以來仍在建設階段及並無營運，故其公平值與其於二零一八年十二月三十一日之成本相若，且於截至二零一八年十二月三十一日止年度並無確認任何公平值變動。所有按公平值計入其他全面收益之投資均以人民幣計值。

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16. INVENTORIES

16. 存貨

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Raw materials	原料	2,839,188	1,432,109
Photovoltaic modules	光伏組件	142,426	370,251
Photovoltaic application products	光伏應用產品	21,074	8,749
Photovoltaic power generation projects to be sold	將予出售之光伏發電項目	118,359	195,905
		3,121,047	2,007,014
Less: impairment provision	減：減值撥備	(362,395)	(317,344)
		2,758,652	1,689,670

The cost of inventories sold for the year ended 31 December 2018 was HK\$9,129,410,000 (2017: HK\$3,472,144,000). As at 31 December 2018, the provision for impairment of inventories was HK\$362,395,000 (2017: HK\$317,344,000) to write down the inventories to their net realisable value.

截至二零一八年十二月三十一日止年度，存貨出售成本為9,129,410,000港元（二零一七年：3,472,144,000港元）。於二零一八年十二月三十一日，為撇減存貨至可變現淨值，存貨減值撥備為362,395,000港元（二零一七年十二月三十一日：317,344,000港元）。

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17. TRADE RECEIVABLES

17. 貿易應收款項

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Trade receivables:	貿易應收款項：		
– Due from Hanergy Affiliates	– 應收漢能聯屬公司	–	2,283,175
– Due from third parties	– 應收第三方	4,138,278	5,009,089
		4,138,278	7,292,264
Less: Impairment of amounts due from third parties	減：應收第三方款項減值	(203,401)	(59,473)
		3,934,877	7,232,791

Based on the invoice date, the ageing analysis of the Group's trade receivables and net of loss allowance is as follows:

根據發票日期，本集團貿易應收款項及扣除虧損撥備之賬齡分析如下：

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Within 3 months	3個月內	873,548	2,771,724
3 to 6 months	3至6個月	15,817	111,839
6 months to 1 year	6個月至1年	1,694,231	735,433
More than 1 year	超過1年	1,351,281	3,613,795
		3,934,877	7,232,791

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

17. TRADE RECEIVABLES (continued)

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

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
At 1 January	於一月一日	59,473	57,930
Impairment losses recognised (note 8)	已確認減值虧損(附註8)	192,701	934
Reversal during the year (note 8)	年內撥回(附註8)	(54,168)	(1,399)
Exchange realignment	匯兌調整	5,395	2,008
At 31 December	於十二月三十一日	203,401	59,473

Impairment under HKFRS 9 for the year ended 31 December 2018

The Group applies the simplified approach to provide for expected credit losses prescribed by HKFRS 9. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. As at 31 December 2018, a credit loss of HK\$203,401,000 was recognised against the gross amount of trade receivables.

Subsequent to 31 December 2018 and up to 29 March 2019 (the date when the financial statements were approved for issuance), the Group has received a total of HK\$2,427,602,000 from the turnkey production line customers. In the opinion of the directors of the Company, the expected credit loss rate for trade receivables due from turnkey production line customers whose trade receivables as of 31 December 2018 have been substantially collected was immaterial. Details of the expected credit loss rates are set out in note 36 to the consolidated financial statements.

17. 貿易應收款項(續)

貿易應收款項之減值扣除虧損撥備變動如下：

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
At 1 January	於一月一日	59,473	57,930
Impairment losses recognised (note 8)	已確認減值虧損(附註8)	192,701	934
Reversal during the year (note 8)	年內撥回(附註8)	(54,168)	(1,399)
Exchange realignment	匯兌調整	5,395	2,008
At 31 December	於十二月三十一日	203,401	59,473

截至二零一八年十二月三十一日止年度香港財務報告準則第9號下之減值

本集團採用香港財務報告準則第9號所訂明的簡化方法就預期信貸虧損作出撥備。為計量預期信貸虧損，貿易應收款項款已根據共同信貸風險特徵及逾期天數分類。於二零一八年十二月三十一日，已就貿易應收款項總額確認信貸虧損203,401,000港元的撥備。

於二零一八年十二月三十一日後及直至二零一九年三月二十九日(財務報表獲批准刊發當日)，本集團已向整套生產線客戶收取總額2,427,602,000港元。本公司董事認為，整套生產線客戶(其截至二零一八年十二月三十一日之貿易應收款項已大部分收回)之貿易應收款項之預期信貸虧損率並不重大。預期信貸虧損的詳情載於綜合財務報表附註36。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

17. TRADE RECEIVABLES (continued)

Impairment under HKAS 39 for the year ended 31 December 2017

Included in the above provision of trade receivables, which was measured based on incurred credit losses under HKAS 39, as at 31 December 2017 was a provision for individually impaired trade receivables of HK\$59,473,000 with a carrying amount before provision of HK\$59,473,000.

The individually impaired trade receivables relate to customers that were in financial difficulties or were in default in principal payments and none of the receivables is expected to be recovered.

The ageing analysis of the net trade receivables as at 31 December 2017 that were not individually nor collectively considered to be impaired under HKAS 39 is as follows:

		2017 二零一七年 HK\$'000 千港元
Neither past due nor impaired	並無逾期及減值	2,013,826
Less than 3 months past due	逾期少於3個月	797,308
3 to 6 months past due	逾期3至6個月	715,585
6 months to 1 year past due	逾期6個月至1年	1,568,700
More than 1 year past due	逾期超過1年	2,137,372
		7,232,791

Receivables that were neither past due nor impaired related to a large number of diversified customers for whom there was no recent history of default.

Receivables that were past due but not impaired related to a number of independent customers that had a good track record with the Group. Based on past experience, the directors of the Company were of the opinion that no provision for impairment under HKAS 39 was necessary in respect of these balances as there had not been a significant change in credit quality and the balances were still considered fully recoverable.

17. 貿易應收款項(續)

截至二零一七年十二月三十一日止年度 香港會計準則第39號下之減值

上述於二零一七年十二月三十一日之貿易應收款項撥備(香港會計準則第39號下按已產生信貸虧損計量)，乃就個別減值貿易應收款項作出之撥備59,473,000港元，其撥備前之賬面值為59,473,000港元。

個別減值貿易應收款項與面臨財政困難或拖欠本金未還的客戶有關，且預期當中概無應收款項可予收回。

於二零一七年十二月三十一日之貿易應收款項淨額中並無於香港會計準則第39號下被視為個別地或共同地減值者之賬齡分析如下：

	2017 二零一七年 HK\$'000 千港元
並無逾期及減值	2,013,826
逾期少於3個月	797,308
逾期3至6個月	715,585
逾期6個月至1年	1,568,700
逾期超過1年	2,137,372
	7,232,791

並無逾期或減值之應收款項與大量多元化客戶有關，彼等近期並無欠款記錄。

已逾期但未減值之應收款項與多名獨立客戶有關，彼等於本集團之記錄良好。根據過往經驗，本公司董事認為毋須按香港會計準則第39號就該等結餘計提減值撥備，原因為信貸質素並無重大變動，而該等結餘仍視為可全數收回。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

18. CONTRACT ASSETS/GROSS AMOUNT DUE FROM CONTRACT CUSTOMERS

(i) Contract assets

		31 December 2018 二零一八年 十二月 三十一日 HK\$'000 千港元	1 January 2018 二零一八年 一月一日 HK\$'000 千港元
Contract assets arising from:	合同資產來自：		
Construction contracts of turnkey production lines	整套生產線之建設合同	12,100,913	2,819,524
Impairment	減值	-	-
		12,100,913	2,819,524

Contract assets are initially recognised for revenue earned from the construction of turnkey production lines for the manufacturing of thin-film solar photovoltaic modules and construction of a series of solar power stations for certain small to medium-sized enterprises and poverty alleviation projects as the receipt of consideration is conditional on successful completion of the construction work. Included in contract assets for construction contracts are retention receivables. Upon completion of the construction and acceptance by the customer, the amounts recognised as contract assets are reclassified to trade receivables. The increase in contract assets in 2018 was the result of the increase in the ongoing delivery of construction contracts at the end of the year.

18. 合同資產／應收合同客戶總額

(i) 合同資產

合同資產最初確認為由建造用以製造薄膜太陽能光伏組件、為中小企業建設一系列太陽能發電站以及扶貧項目之整套生產線所賺取的收益，因為須待建設工程順利完成方會收取代價。建設合同之合同資產包括應收保固款項。一旦建設完成並經客戶驗收，於合同資產確認之金額將會重新分類為貿易應收款項。合同資產於二零一八年增加，反映持續履行的建設合同於年末有所增加。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

18. CONTRACT ASSETS/GROSS AMOUNT DUE FROM CONTRACT CUSTOMERS

(continued)

(i) Contract assets (continued)

In the opinion of the directors of the Company, the expected credit loss rates for contract assets are the same as those trade receivables as of 31 December 2018 for the same types of contracts and are minimal. Details of the expected credit loss rates are set out in note 36 to the consolidated financial statements.

Management expects that the majority of the above disclosed contract assets as at 31 December 2018 will be recovered or settled in 2019.

(ii) Gross amount due from contract customers

18. 合同資產／應收合同客戶總額

(續)

(i) 合同資產(續)

本公司董事認為，合同資產之預期信貸虧損率與截至二零一八年十二月三十一日同類合約之貿易應收款項之預期信貸虧損率相同且並不重大。預期信貸虧損率的詳情載於綜合財務報表附註36。

管理層預期上述披露截至二零一八年十二月三十一日之合同資產大部分將於二零一九年收回或結清。

(ii) 應收合同客戶總額

		2017 二零一七年 HK\$'000 千港元
At 1 January	於一月一日	1,547,405
Contract costs incurred plus recognised profits less recognised losses	已產生合同成本加已確認溢利減已確認虧損	5,366,670
Progress billings	進度賬單款項	(4,708,435)
Exchange realignment	匯兌調整	195,020
At 31 December	於十二月三十一日	2,400,660

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

19. OTHER RECEIVABLES

19. 其他應收款項

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Other receivables:	其他應收款項：		
- Due from Hanergy Holding	- 應收漢能控股	664	194,879
- Due from Hanergy Affiliates	- 應收漢能聯屬公司	6,375	4,210
- Due from third parties	- 應收第三方	4,107,076	1,262,590
		4,114,115	1,461,679
Less: Impairment	減：減值	(12,139)	(24,536)
		4,101,976	1,437,143

The movements in provision for impairment of other receivables are as follows:

其他應收款項減值撥備的變動如下：

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
At 1 January	於一月一日	24,536	22,923
Reversal (note 8)	回撥(附註8)	(11,684)	-
Exchange realignment	匯兌調整	(713)	1,613
At 31 December	於十二月三十一日	12,139	24,536

The Group applies the general approach to provide for expected credit losses prescribed by HKFRS 9. As at 31 December 2018, credit loss of HK\$12,139,000 (2017: HK\$24,536,000) was made against the gross amount of other receivables. Details of the expected credit loss rates are set out in note 36 to the consolidated financial statements.

本集團應用一般方法就香港財務報告準則第9號規定的預期信貸虧損作出撥備。於二零一八年十二月三十一日，已就其他應收款項總額作出信貸虧損12,139,000港元(二零一七年：24,536,000港元)。預期信貸虧損率之詳情載於綜合財務報表附註36。

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

20. BILLS RECEIVABLE

At 31 December 2018, certain subsidiaries of the Group endorsed certain bills receivable accepted by banks in Mainland China to certain suppliers in order to settle the trade payables due to such suppliers with a carrying amount in aggregate of RMB290,799,000 (equivalent to HK\$331,886,000) (2017: RMB190,674,000 (equivalent to HK\$228,103,000)). Among these bills receivable, RMB170,877,000 (equivalent to HK\$195,020,000) (2017: RMB176,037,000 (equivalent to HK\$210,594,000)) of the bills receivable have been derecognised (the "Derecognised Bills"). The Derecognised Bills had a maturity of 1 to 12 months at the end of the reporting period. In accordance with the Law of Negotiable Instruments in the PRC, the holders of the Derecognised Bills have a right of recourse against the Group if the PRC banks default (the "Continuing Involvement"). In the opinion of the directors, the Group has transferred substantially all the risks and rewards relating to the Derecognised Bills. Accordingly, it has derecognised the full carrying amounts of the Derecognised Bills and the associated trade payables. The maximum exposure to loss from the Group's Continuing Involvement in the Derecognised Bills and the undiscounted cash flows to repurchase these Derecognised Bills is equal to their carrying amounts. In the opinion of the directors, the fair values of the Group's Continuing Involvement in the Derecognised Bills are not significant.

During the year ended 31 December 2018, the Group has not recognised any gain or loss on the date of transfer of the Derecognised Bills. No gains or losses were recognised from the Continuing Involvement, both during the year or cumulatively. Besides, the Group did not discount any bills receivable to the bank for the year ended 31 December 2018.

20. 應收票據

於二零一八年十二月三十一日，本集團若干附屬公司向若干供應商背書已獲中國內地銀行接納之若干應收票據款項，以償付結欠該等供應商的貿易應付款項，賬面總值為人民幣290,799,000元（相當於331,886,000港元）（二零一七年：人民幣190,674,000元（相當於228,103,000港元））。該等票據應收款項當中，有人民幣170,877,000元（相當於195,020,000港元）（二零一七年：人民幣176,037,000元（相當於210,594,000港元））之票據應收款項已予終止確認（「終止確認票據」）。於報告期末，終止確認票據於一至十二個月到期。根據中國票據法，倘中國之銀行違約，終止確認票據之持有人擁有針對本集團之追索權（「持續參與」）。董事認為，本集團已轉移終止確認票據相關之絕大部分風險及回報，故已取消確認終止確認票據之全部賬面值及相關貿易應付款項。本集團持續參與終止確認票據及購回該等終止確認票據之未貼現現金流量產生虧損之最大風險相當於其賬面值。董事認為，本集團持續參與終止確認票據之公平值並不重大。

截至二零一八年十二月三十一日止年度，本集團於轉讓終止確認票據當日並無確認任何損益。於本年度內概無就持續參與確認或累計確認任何損益。此外，於截至二零一八年十二月三十一日止年度，本集團並無向銀行折現任何應收票據。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

21. DEPOSITS AND PREPAYMENTS

21. 按金及預付款項

		Notes	2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
		附註		
Deposits	按金		137,272	69,405
Prepayments paid to:	已付予以下人士之預付款項：			
– Hanergy Affiliates	– 漢能聯屬公司	(i)	82,359	112,665
– Third parties	– 第三方		5,325,456	3,232,179
			5,407,815	3,344,844
Less: impairment	減：減值		(44,697)	(44,913)
			5,500,390	3,369,336

Included in the above assets, HK\$370,006,000 (2017: HK\$441,379,000) of the prepayments are aged over 1 year, whereas all the remaining deposits and prepayments are aged less than 1 year. Details of the expected loss rates used for deposits are set out in note 36 to the consolidated financial statements.

Except for those prepayments already impaired and prepayments paid to Hanergy Affiliates, assets included in the above balance are related to prepayments for certain uncompleted purchase contracts.

上述資產中包含賬齡超過1年的370,006,000港元(二零一七年：441,379,000港元)預付款項，其餘所有按金及預付款項之賬齡皆少於1年。按金的預期信貸虧損率的詳情載於綜合財務報表附註36。

除已予減值的預付款項及已付漢能聯屬公司的預付款項外，上述結餘所包括的若干資產與若干未完成採購合同的預付款項有關。

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

21. DEPOSITS AND PREPAYMENTS (continued)

Note:

- (i) The balances mainly represented the prepayments for the purchase of photovoltaic ("PV") modules under the master agreement signed with Hanergy Holding on 11 April 2012. The master agreement was effective for three years from 1 January 2012 to 31 December 2014. During 2013, the Company's subsidiaries entered into several PV module purchase subcontracts ("Subcontracts") with Hanergy Affiliates, nominees of Hanergy Holding, to purchase PV modules with a total capacity of 677.9 MW for construction of the downstream photovoltaic power generation projects. According to the terms of the Subcontracts, approximately 50% of the total contract amounts have been paid by the Company's subsidiaries on the placement of the orders in 2013. As of 31 December 2013, a total of 58.5 MW PV modules have been delivered by Hanergy Affiliates.

The delay of delivery of the PV modules was mainly due to the production arrangement by Hanergy Affiliates, which has caused the delay in the construction of the photovoltaic power generation projects by the Group. Accordingly, the Group reached mutual agreement with Hanergy Affiliates to return the prepayments of HK\$1,262,629,000 before 31 December 2014 in relation to a total capacity of 459.4 MW PV modules and terminate these Subcontracts simultaneously.

During 2014, the Company's subsidiaries also entered into several new PV module purchase Subcontracts with Hanergy Affiliates to purchase PV modules with a total capacity of 558 MW for construction of the downstream photovoltaic power generation projects. According to the terms of the Subcontracts, approximately 50% of the total contract amounts have been paid by the Company's subsidiaries on the placement of the orders in 2014.

A total of 28.8 MW PV modules have been delivered by Hanergy Affiliates in 2014. As of 31 December 2014, there were a total capacity of 689.2 MW PV modules have not been delivered by Hanergy Affiliates.

On 20 January 2015, the Company entered into a supplemental agreement to the 150 MW PV modules supply contract signed on 23 December 2013 with Hanergy Holding on the settlement of prepayments made in 2013 by offsetting this with the payables of delivered PV modules under the 150MW PV modules supply contract, and the original total capacity of 150 MW was reduced to 80.9 MW.

The Company and Hanergy Holding entered into a PV module supply agreement on 30 April 2015 for purchase of PV modules for the year ended 31 December 2015.

21. 按金及預付款項(續)

附註：

- (i) 結餘主要指根據於二零一二年四月十一日與漢能控股簽署之總協議，就購入光伏(「光伏」)組件支付之預付款項。總協議於二零一二年一月一日至二零一四年十二月三十一日三年間生效。於二零一三年，本公司之附屬公司與漢能聯屬公司，漢能控股之代理人，訂立多份光伏組件購入附屬協議(「附屬協議」)，就建設下游光伏發電項目購入總產能為677.9MW之光伏組件。根據附屬協議條款，本公司之附屬公司已於二零一三年下達訂單時支付合同總金額約50%。於二零一三年十二月三十一日，漢能聯屬公司已交付產能為58.5MW之光伏組件。

延後交付光伏組件主要是由於漢能聯屬公司之生產安排導致本集團建設光伏發電項目有所延誤所致。因此，本集團已與漢能聯屬公司達成雙方協議，以於二零一四年十二月三十一日前退回與總產能為459.4MW的光伏組件相關的預付款1,262,629,000港元，並同時終止此等附屬協議。

二零一四年間，本公司之附屬公司與漢能聯屬公司同時訂立多份新光伏組件購入附屬協議，以購買總產能為558MW的光伏組件，用於建設下游光伏發電項目。根據該等附屬協議之條款，本公司之附屬公司已於二零一四年下達訂單時支付合同金額約50%。

二零一四年，漢能聯屬公司交付總產能為28.8MW之光伏組件。截至二零一四年十二月三十一日，漢能聯屬公司未能交付總產能為689.2MW之光伏組件。

於二零一五年一月二十日，本公司就於二零一三年十二月二十三日訂立的150MW光伏組件供應合約與漢能控股訂立補充協議，內容有關結算於二零一三年作出的預付款項，以150MW光伏組件供應合約下已交付光伏組件的應付款項抵銷，原總產能150MW則減為80.9MW。

於二零一五年四月三十日，本公司與漢能控股就於截至二零一五年十二月三十一日止年度購買光伏組件訂立光伏組件供應協議。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

21. DEPOSITS AND PREPAYMENTS (continued)

Note: (continued)

(i) (continued)

During 2015, the Company's subsidiaries aforementioned entered into several new Subcontracts with Hanergy Affiliates under the PV module supply agreement to purchase PV modules with a total capacity of 57.7 MW for construction of the downstream photovoltaic power generation projects. According to the terms of the Subcontracts, approximately 50% of the total contract sum have been paid by the Company's subsidiaries on the placement of the orders in 2015.

PV modules with a total capacity of 315 MW had been delivered by Hanergy Affiliates in the year 2015. As of 31 December 2015, PV modules with a total capacity of 362.8 MW had not been delivered by Hanergy Affiliates.

During 2016, the Company signed certain new purchase orders with Hanergy Affiliates for PV modules with a total capacity of 1.2 MW. PV modules with a total capacity of 136.0 MW had been delivered by Hanergy Affiliates in 2016. As at 31 December 2016, PV modules with a total capacity of 228.0 MW had not been delivered by Hanergy Affiliates.

On 31 December 2017, the Group reached two mutual agreements with Hanergy Affiliates. One was to return the prepayments of HK\$6,939,000 in relation to PV modules with a total capacity of 10MW and to terminate the Subcontract simultaneously. The other was to net off the prepayments of HK\$225,925,000 with trade payables in relation to the purchase of the PV modules from Hanergy Affiliates before 31 December 2017 and the undelivered PV modules under the Subcontracts would still be delivered in the future.

During 2017, the Company did not sign any new purchase contracts with Hanergy Affiliates. A total capacity of 64.6 MW PV modules had been delivered by Hanergy Affiliates in 2017. As of 31 December 2017, PV modules with a total capacity of 153.4 MW had not been delivered by Hanergy Affiliates.

21. 按金及預付款項(續)

附註：(續)

(i) (續)

於二零一五年，本公司上述附屬公司根據光伏組件供應協議與漢能聯屬公司訂立多份新附屬協議，以購買總產能為57.7MW的光伏組件，用於建設下游光伏發電項目。根據該等附屬協議之條款，本公司之附屬公司已於二零一五年下達訂單時支付合同金額約50%。

於二零一五年，漢能聯屬公司已交付總產能為315MW之光伏組件。於二零一五年十二月三十一日，漢能聯屬公司尚未交付產能合共362.8MW之光伏組件。

於二零一六年，本公司與漢能聯屬公司訂立若干新採購訂單，購買總產能為1.2MW之光伏組件。於二零一六年，漢能聯屬公司已交付總產能共136.0MW之光伏組件。於二零一六年十二月三十一日，漢能聯屬公司尚未交付產能合共228.0MW之光伏組件。

於二零一七年十二月三十一日，本集團與漢能聯屬公司達成兩次雙方協議。第一次乃為退回有關總產能為10MW之光伏組件之預付款項6,939,000港元，並同時終止附屬協議。另一次乃就於二零一七年十二月三十一日前向漢能聯屬公司購買光伏組件之貿易應付款項抵銷預付款項225,925,000港元，而附屬協議項下尚未交付之光伏組件日後仍會進行交付。

於二零一七年，本公司並無與漢能聯屬公司簽訂任何新採購訂單。於二零一七年，漢能聯屬公司已交付總產能64.6MW之光伏組件。於二零一七年十二月三十一日，漢能聯屬公司仍未交付總產能153.4MW之光伏組件。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

21. DEPOSITS AND PREPAYMENTS (continued)

Note: (continued)

(i) (continued)

On 26 March 2018, the Company reached a mutual agreement ("Settlement Agreement") with Hanergy Holding. Pursuant to the agreement, the parties mutually agreed that if Hanergy Affiliates could not deliver the PV modules to the Group before 31 December 2018, Hanergy Affiliates are not entitled to call for repayment of the trade payables and other payables to the extent of the other receivables due from Hanergy Affiliates and prepayments made to Hanergy Affiliates that are outstanding before 31 December 2018.

During 2018, the Company did not sign any new purchase contracts with Hanergy Affiliates. PV modules with a total capacity of 35.7 MW have been delivered by Hanergy Affiliates in this year. As of 31 December 2018, PV modules with a total capacity of 117.7 MW have not been delivered by Hanergy Affiliates.

On 28 March 2019, the Company reached a supplementary agreement with Hanergy Holding. Pursuant to the agreement, the parties mutually agreed to extend the Settlement Agreement to before 31 December 2019.

21. 按金及預付款項(續)

附註：(續)

(i) (續)

於二零一八年三月二十六日，本公司與漢能控股達成共同協議（「和解協議」）。根據該協議，雙方共同同意，倘漢能聯屬公司於二零一八年十二月三十一日前未能向本集團交付光伏組件，則漢能聯屬公司無權要求償還於二零一八年十二月三十一日尚未償還之應付貿易款項及其他應付款項（以應付漢能聯屬公司之其他應收款項及預付款項為限）。

於二零一八年，本公司並無與漢能聯屬公司簽訂新採購訂單。該年漢能聯屬公司已交付產能共35.7MW之光伏組件。於二零一八年十二月三十一日，漢能聯屬公司尚未交付產能共117.7MW之光伏組件。

於二零一九年三月二十八日，本公司與漢能控股達成一項補充協議。根據該協議，雙方一致同意將和解協議延長至二零一九年十二月三十一日。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

22. CASH AND CASH EQUIVALENTS AND RESTRICTED CASH

22. 現金及現金等價物及受限制現金

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Cash and bank balances	現金及銀行結存	359,049	2,496,760
Restricted cash	受限制現金	64,678	144,340
Less: Restricted cash	減：受限制現金	(64,678)	(144,340)
Cash and cash equivalents	現金及現金等價物	359,049	2,496,760

The breakdown of cash and cash equivalents and restricted cash by denominated currency is as follow:

按計值貨幣劃分之現金及現金等價物及受限制現金之明細如下：

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
(HK\$ equivalent) (港元等值)			
Cash and bank balances denominated in:	以下列貨幣計值之 現金及銀行結存：		
RMB	人民幣	238,834	2,329,179
US\$	美元	65,734	112,903
HK\$	港元	23,353	11,591
EUR	歐元	31,109	28,035
Others	其他	19	15,052
Total	總額	359,049	2,496,760
Restricted cash denominated in:	以下列貨幣計值之受限制現金：		
RMB	人民幣	46,275	140,236
US\$	美元	18,403	4,104
Total	總額	64,678	144,340

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

22. CASH AND CASH EQUIVALENTS AND RESTRICTED CASH (continued)

At the end of the reporting period, the cash and cash equivalents and the restricted cash of the Group denominated in RMB amounted to HK\$285,109,000 (2017: HK\$2,469,415,000). The RMB is not freely convertible into other currencies, however, under Mainland China's Foreign Exchange Control Regulations and Administration of Settlement, Sale and Payment of Foreign Exchange Regulations, the Group is permitted to exchange RMB for other currencies through banks that are authorised to conduct foreign exchange business.

Cash at banks earns interest at floating rates based on daily bank deposit rates. Short term time deposits are made for varying periods of between one day to three months depending on the immediate cash requirements of the Group, and earn interest at the respective short term time deposit rates. The bank balances and restricted cash are deposited with creditworthy banks with no recent history of default.

23. TRADE AND BILLS PAYABLES

Trade and bills payables due to:	應付予以下人士之貿易及票據 應付款項：
- Related parties	- 關聯人士
- Third parties	- 第三方

Based on the invoice date, the ageing analysis of the Group's trade and bills payables is as follows:

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
0 - 30 days	0-30天	215,714	583,185
31 - 60 days	31-60天	40,302	102,969
61 - 90 days	61-90天	196,211	51,916
Over 90 days	90天以上	4,719,843	999,806
		5,172,070	1,737,876

The trade payables are non-interest-bearing and the credit terms are normally 60 days.

22. 現金及現金等價物及受限制現金 (續)

於報告期末，本集團以人民幣為單位之現金及現金等價物及受限制現金為285,109,000港元（二零一七年：2,469,415,000港元）。人民幣不可自由兌換為其他貨幣，然而，根據中國內地之外匯管制條例及結匯管理規定，本集團獲批准透過獲授權進行外匯業務之銀行將人民幣兌換為其他貨幣。

銀行現金根據每日銀行存款利率計算之浮息賺取利息。短期定期存款之存款期由一日至三個月不等，視乎本集團之即時現金需求而定，並按各短期定期存款息率賺取利息。銀行結存及受限制現金存放於信譽良好且無近期拖欠記錄之銀行。

23. 貿易及票據應付款項

根據發票日期，本集團貿易及票據應付款項之賬齡分析如下：

貿易應付款項並不附息，一般信用期限為60天。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

24. OTHER PAYABLES AND ACCRUALS

24. 其他應付款項及應計費用

		Notes 附註	2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Deposits	按金		5,000	5,970
Other payables due to:	應付予以下人士之其他 應付款項：			
- Hanergy Holding	- 漢能控股	(i)	3,935	5,115
- Hanergy Affiliates	- 漢能聯屬公司	(ii)	118,047	128,748
- Third parties	- 第三方	(iii)	2,951,016	1,334,288
Sub-total	小計		3,072,998	1,468,151
Accruals	應計費用	(iv)	490,756	316,419
Provision for warranties	保養撥備	(v)	390,263	43,174
Advances from customers	客戶預付款	(vi)	-	5,239,848
			3,959,017	7,073,562

Notes:

- (i) The payables to Hanergy Holding represent the advances from Hanergy Holding to the Group for the purpose of daily operation. The balances are unsecured, interest-free and repayable on demand.
- (ii) The balance mainly included the amount of HK\$82,871,000 (2017: HK\$79,914,000) from Hanergy Affiliates to the Group for the purpose of daily operation, and the balance of HK\$35,176,000 (2017: HK\$48,834,000) payable to Sichuan Hanergy Photovoltaic Limited ("Sichuan Hanergy"), Hanergy Holding's affiliate, relating to the rental of a production line, office premises, factory premises and staff dormitory, and the usage of relevant equipment, material and facilities, etc. The above balances are unsecured, interest-free and repayable on demand.
- (iii) The balance due to third parties mainly consisted of value added tax payables amounting to HK\$2,375,233,000 (2017: HK\$899,549,000) and reputation deposit amounting to HK\$197,831,000 (2017: HK\$213,533,000) collected from downstream distributors.
- (iv) The balance included an amount of HK\$92,654,000 (2017: HK\$20,056,000) which represented the maximum expense which the Group would be charged on certain current lawsuits.

附註：

- (i) 應付漢能控股之款項指漢能控股就日常營運目的付予本集團之預付款項。該等結餘為無抵押、免息及於要求時還款。
- (ii) 結餘包括漢能聯屬公司就日常營運目的付予本集團之預付款項82,871,000港元(二零一七年：79,914,000港元)，及就租用生產線、辦公場所、工廠場所及員工宿舍以及使用相關設備、材料及設施等向漢能控股之聯屬公司四川漢能光伏有限公司(「四川漢能」)應付之餘款35,176,000港元(二零一七年：48,834,000港元)。上述結餘為無抵押、免息及於要求時還款。
- (iii) 應付第三方之結餘主要包括來自下游分銷商之應付增值稅2,375,233,000港元(二零一七年：899,549,000港元)及聲譽按金197,831,000港元(二零一七年：213,533,000港元)。
- (iv) 結餘包括為數92,654,000港元(二零一七年：20,056,000港元)為本集團就若干現時訴訟將支付的最大開支。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

24. OTHER PAYABLES AND ACCRUALS

(continued)

Notes: (continued)

(v) Provision for warranties

		Product warranties	
		產品保養	
		2018	2017
		二零一八年	二零一七年
		HK\$'000	HK\$'000
		千港元	千港元
Beginning balance (as previously reported)	年初結餘(如先前呈報)	43,174	26,762
Adjustment from adoption of HKFRS 15 (note 2.2)	採納香港財務報告準則 第15號後之調整(附註2.2)	118,850	-
Beginning balance (restated)	年初結餘(經重列)	162,024	26,762
Provided during the year (note 8)	年內撥備(附註8)	261,609	38,468
Amounts utilised during the year	年內所用金額	(14,406)	(24,454)
Exchange realignment	匯兌調整	(18,964)	2,398
At 31 December	於十二月三十一日	390,263	43,174

The Group provides assurance type warranties to its customers on the turnkey production lines during the warranty period of one to two years as specified in the contracts. The Group provides three to ten years' warranties to its customers on certain of its photovoltaic modules, inverter and rooftop power stations, for general repairs of defects occurring during the warranty period. The amount of the provision for warranties is estimated based on sales volumes and past experience of the level of repairs and returns. The estimation basis is reviewed on an ongoing basis and revised where appropriate.

(vi) Advances from customers represent receipts from the Group's turnkey production line construction contract customers and downstream distributors. The opening balance as at 1 January 2018 of HK\$5,239,848,000 has been reclassified to contract liabilities as detailed in note 2.2 to the consolidated financial statements.

Save for those disclosed above, other payables and accruals are non-interest-bearing and normally have no fixed term of settlement.

24. 其他應付款項及應計費用(續)

附註：(續)

(v) 保養撥備

本集團於合同訂明的一至兩年保養期內向其客戶提供整套生產線之保證保養。本集團就若干光伏組件、變流器及屋頂電站向其客戶提供三至十年保養，就保養期內出現之瑕疵進行一般維修。保養撥備之金額乃按銷售額及過往修理及退貨水平之經驗為基準。估計基準乃定期檢討，並在適當情況下修改。

(vi) 客戶預付款指本集團自整套生產線建設合同客戶及下游經銷商之收款。誠如綜合財務報表附註2.2所詳述，於二零一八年一月一日之年初結餘5,239,848,000港元已重新分類至合同負債。

除上述披露外，其他應付款項及應計費用為不計息，並無固定結算期限。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

25. CONTRACT LIABILITIES

25. 合同負債

		31 December 2018 二零一八年 十二月三十一日 HK\$'000 千港元	1 January 2018 二零一八年 一月一日 HK\$'000 千港元
<i>Short-term advances received from customers</i> 客戶短期預付款			
Construction contracts of turnkey production lines	整套生產線之建設合同	2,286,927	4,257,707
Downstream distributors and others	下游經銷商及其他	906,077	982,141
Total contract liabilities	合同負債總額	3,193,004	5,239,848

Contract liabilities include short-term advances received in relation to the Group's turnkey production line construction contract customers and downstream distributor sales. The decrease in contract liabilities in 2018 was mainly due to the satisfaction of a performance obligation to recognise as revenue arising from these contract liabilities.

合同負債包括就本集團整套生產線建設合同客戶及下游經銷商銷售收取之短期預付款。二零一八年合同負債減少乃主要由於完成履行一項履約責任，並確認為該等合同負債所產生的收益所致。

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

26. INTEREST-BEARING BANK AND OTHER BORROWINGS

26. 銀行及其他付息借款

	Notes 附註	31 December 2018 二零一八年十二月三十一日			31 December 2017 二零一七年十二月三十一日		
		Effective interest rate (%) 有效息率 (%)	Maturity 到期日	HKS'000 千港元	Effective interest rate (%) 有效息率 (%)	Maturity 到期日	HKS'000 千港元
Current:							
Bank loans – guaranteed and secured	即期： 銀行借款—已擔保及有抵押 (a)	8.7	2019	52,499	8.7	2018	55,030
Interest-bearing other borrowings:	其他付息借款：						
A third party – unsecured	第三方—無抵押	–	–	–	5	2018	2,345
A third party – unsecured	第三方—無抵押	5	2019	97,904	–	–	–
A third party – unsecured	第三方—無抵押	2.2	2019	28,532	–	–	–
Related parties – unsecured	關聯人士—無抵押	–	–	–	5-6	2018	2,225
Related parties – unsecured	關聯人士—無抵押	3	2019	548	3	2018	11,647
Current portion of long term borrowings:	長期借款之即期部分：						
Bank loans – secured	銀行借款—有抵押 (b)	5% above PBOC benchmark lending rate 人行基準貸款利率上浮5%	2019	3,424	5% above PBOC benchmark lending rate 人行基準貸款利率上浮5%	2018	5,982
Interest-bearing other borrowings:	其他付息借款：						
A third party – secured	第三方—有抵押 (c)	10	2019	12,930	10	2018	12,898
Related parties – unsecured	關聯人士—無抵押	–	–	–	3	2018	78,015
Related parties – unsecured	關聯人士—無抵押	–	–	–	3	2018	292,361
Related parties – unsecured	關聯人士—無抵押	–	–	–	3	2018	137,107
Total	合計			195,837			597,610
Non-current:							
Bank loans – secured	非即期： 銀行借款—有抵押 (b)	5% above PBOC benchmark lending rate 人行基準貸款利率上浮5%	2020-2029	97,466	5% above PBOC benchmark lending rate 人行基準貸款利率上浮5%	2019-2029	103,360
Interest-bearing other borrowings:	其他付息借款：						
Related parties – unsecured	關聯人士—無抵押	–	–	–	3	2020	1,954
A third party – secured	第三方—有抵押 (c)	10	2020-2021	21,428	10	2021	34,287
A third party – guaranteed	第三方—已擔保 (d)	PBOC benchmark lending rate 利率	2022	342,388	PBOC benchmark lending rate 利率	2022	358,890
Third parties – unsecured	第三方—無抵押	–	–	–	2	2024	29,907
Third parties – unsecured	第三方—無抵押 (e)	2.3	2023	29,674	–	–	–
				490,956			528,398
Total	合計			686,793			1,126,008

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

26. INTEREST-BEARING BANK AND OTHER BORROWINGS (continued) 26. 銀行及其他付息借款(續)

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Analysed into:	分析為：		
Bank loans and overdrafts repayable:	應付銀行借貸及透支：		
Within one year or on demand	一年內或按要求償還	55,923	61,012
In the second year	第二年內	7,990	5,981
In the third to fifth years, inclusive	第三至第五年內 (首尾兩年包括在內)	27,392	11,963
Beyond five years	超過五年	62,084	85,416
		153,389	164,372
Other borrowings repayable:	其他應付借款：		
Within one year	一年內	139,914	536,598
In the second year	第二年內	14,713	-
In the third to fifth years, inclusive	第三至第五年內 (首尾兩年包括在內)	349,103	395,131
Beyond five years	超過五年	29,674	29,907
		533,404	961,636
Total	合計	686,793	1,126,008

Notes:

(a) The bank borrowings are secured by property, plant and equipment with a net book value before impairment of RMB6,762,000 (equivalent to HK\$7,718,000) held by Apollo Fujian, and guaranteed by Hanergy Holding. The loans were borrowed in August and September 2018 to repay the matured loan of RMB42,000,000 and RMB4,000,000.

附註：

(a) 銀行借款由福建鉅陽所持有減值前賬面淨值為人民幣6,762,000元(相當於7,718,000港元)之物業、廠房及設備所抵押並由漢能控股擔保。該等貸款於二零一八年八月及九月借出以償還到期貸款人民幣42,000,000元及人民幣4,000,000元。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

26. INTEREST-BEARING BANK AND OTHER BORROWINGS (continued)

Notes: (continued)

- (b) The bank borrowings are secured by the electricity income right of the solar power station which belongs to Guangzhou Qiguang Ltd., a subsidiary of the Company.
- (c) The balances are borrowings from Utica Leaseco LLC., with the principal of US\$6,600,000. The borrowings covered a period of 51 months and are secured by the pledged property, plant and equipment of Alta Devices Inc. with a net book value before impairment of US\$1,102,000 (equivalent to HK\$8,634,000).
- (d) The balance is a borrowing from a third party company and is guaranteed by Hanergy Holding.
- (e) The balance is a 5-year long term entrusted loans from unrelated third party company which are repayable within two years after maturity.
- (f) As of 31 December 2018, the interest-bearing bank and other borrowings are mainly denominated in RMB, US\$ and HK\$ with the amount of RMB485,400,000 (equivalent to HK\$553,984,000), US\$7,246,000 (equivalent to HK\$56,759,000) and HK\$76,050,000, respectively.

26. 銀行及其他附息借款(續)

附註：(續)

- (b) 銀行借款由屬於本公司之附屬公司廣州啓光太陽能科技有限公司之太陽能發電站售電收入權所抵押。
- (c) 該結餘為來自Utica Leaseco LLC.本金額為6,600,000美元之借款。借款涵蓋之期間為51個月，並由Alta Devices Inc.減值前賬面淨值為1,102,000美元(相當於8,634,000港元)之已抵押物業、廠房及設備所抵押。
- (d) 該結餘為來自第三方公司之借款，並由漢能控股擔保。
- (e) 該結餘為來自無關聯第三方公司之長期委託貸款，為期五年，須於到期後兩年內還款。
- (f) 於二零一八年十二月三十一日，銀行及其他附息借款主要以人民幣、美元及港元計值，金額分別為人民幣485,400,000元(相當於553,984,000港元)、7,246,000美元(相當於56,759,000港元)及76,050,000港元。

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27. DEFERRED TAX

The components of deferred tax (liabilities)/assets recognised in the consolidated statement of financial position and the movements during the year are as follows:

27. 遞延稅項

年內於綜合財務狀況表確認的遞延稅項(負債)／資產的組成及變動如下：

		Recognition of differences on revenue of construction contracts 確認建設合同收入差額 HK\$'000 千港元	Provision for warranties 保養撥備 HK\$'000 千港元	Withholding tax 預扣稅 HK\$'000 千港元	Total 合計 HK\$'000 千港元
1 January 2017	二零一七年一月一日	-	-	(401,220)	(401,220)
Deferred tax charged to profit or loss during the year	年內於損益中扣除之遞延稅項	(129,014)	-	51,411	(77,603)
Exchange realignment	匯兌調整	(4,840)	-	5,615	775
At 31 December 2017 and 1 January 2018	於二零一七年十二月三十一日及二零一八年一月一日	(133,854)		(344,194)	(478,048)
Adjustment from adoption of HKFRS 15 (note 2.2)	採納香港財務報告準則第15號之調整(附註2.2)	(131,685)	-	-	(131,685)
At 1 January 2018 (restated)	於二零一八年一月一日(經重列)	(265,539)	-	(344,194)	(609,733)
Deferred tax (charged)/credited to profit or loss	於損益中(扣除)／計入之遞延稅項	(452,253)	31,960	(576,177)	(996,470)
Deferred tax charged to profit or loss in relation to prior years distributable profits, due to the change of withholding tax rate in the current year	由於本年度預扣稅率變動，有關過往年度可分派溢利之於損益中扣除之遞延稅項	-	-	(344,194)	(344,194)
Deferred tax (charged)/credited to profit or loss during the year (note 9)	年內於損益中(扣除)／計入之遞延稅項(附註9)	(452,253)	31,960	(920,371)	(1,340,664)
Exchange realignment	匯兌調整	16,239	(1,150)	(9,144)	5,945
At 31 December 2018	於二零一八年十二月三十一日	(701,553)	30,810	(1,273,709)	(1,944,452)

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27. DEFERRED TAX (continued)

Reconciliation to the consolidated statement of financial position:

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Net deferred tax assets recognised in the consolidated statement of financial position	於綜合財務狀況表確認之淨遞延稅項資產	30,810	-
Net deferred tax liabilities recognised in the consolidated statement of financial position	於綜合財務狀況表確認之淨遞延稅項負債	(1,975,262)	(478,048)
		(1,944,452)	(478,048)

The Group has tax losses of HK\$8,501,863,000 (2017: HK\$6,990,988,000) that are available for offsetting against future taxable profits of the companies in which the losses arose, subject to the rules of the tax jurisdictions in which the Group operates. Deferred tax assets have not been recognised in respect of HK\$8,501,863,000 (2017: HK\$6,990,988,000) as they have arisen in subsidiaries that have been loss-making for some time and it is not considered probable that taxable profits will be available against which the tax losses can be utilised.

Among the unrecognised tax losses, HK\$8,501,863,000 (2017: HK\$6,990,988,000) will expire at various dates from 2019 to 2023 (2017: 2018 to 2022), if unused.

Deferred tax assets have not been recognised on the Group's deductible temporary differences of HK\$9,968,969,000 as of 31 December 2018 (2017: HK\$10,158,252,000) as it is not considered probable that taxable profits will be available against which the deductible temporary differences can be utilised in the foreseeable future.

27. 遞延稅項(續)

與綜合財務狀況表的對賬：

本集團之稅務虧損8,501,863,000港元(二零一七年：6,990,988,000港元)可於本集團經營所在稅務司法權區之規則之規限下，用以抵銷產生虧損之公司之未來應課稅溢利。由於該等虧損由已虧損一段時間之附屬公司所產生，並被視為不可能有應課稅溢利可用作抵銷稅務虧損，故並無就該8,501,863,000港元(二零一七年：6,990,988,000港元)確認遞延稅項資產。

未獲確認之稅項虧損中，有8,501,863,000港元(二零一七年：6,990,988,000港元)如未動用，則將於二零一九年至二零二三年(二零一七年：二零一八年至二零二二年)屆滿。

由於認為在可見將來不可能有應課稅溢利以動用暫時差額，並無就本集團於二零一八年十二月三十一日之可扣稅臨時差額9,968,969,000港元(二零一七年：10,158,252,000港元)確認遞延稅項資產。

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28. SHARE CAPITAL

(a) Shares

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Authorised:	法定：		
64,000,000,000 (2017: 64,000,000,000) ordinary shares of HK\$0.0025 each	64,000,000,000股 (二零一七年： 64,000,000,000股) 每股面值0.0025港元 之普通股	160,000	160,000
Issued and fully paid:	已發行及繳足：		
42,145,676,000 (2017: 42,145,676,000) ordinary shares of HK\$0.0025 each	42,145,676,000股 (二零一七年： 42,145,676,000股) 每股面值0.0025港元 之普通股	105,364	105,364

A summary of movements in the Company's share capital is as follows:

本公司股本變動之概要如下：

		Number of shares in issue 已發行股份數目 '000 shares 千股	Issued capital 已發行股本 HK\$'000 千港元	Share premium account 股份溢價賬 HK\$'000 千港元	Total 總額 HK\$'000 千港元
At 31 December 2016 and 1 January 2017	於二零一六年十二月三十一日及 二零一七年一月一日	41,859,051	104,647	11,244,621	11,349,268
Exercise of share options - Other Option III	行使購股權 - 其他購股權III	286,625	717	70,940	71,657
At 31 December 2017	於二零一七年十二月三十一日	42,145,676	105,364	11,315,561	11,420,925
At 31 December 2017 and 1 January 2018	於二零一七年十二月三十一日及 二零一八年一月一日	42,145,676	105,364	11,315,561	11,420,925
At 31 December 2018	於二零一八年十二月三十一日	42,145,676	105,364	11,315,561	11,420,925

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

28. SHARE CAPITAL (continued)

(b) Subscription rights

On 20 May 2010, Apollo Fujian, an indirect wholly-owned subsidiary of the Company and Hanergy Holding entered into a sales contract (the “2010 Sales Contract”) pursuant to which Apollo Fujian agreed to sell, and Hanergy Holding agreed to purchase the turnkey equipment, tools and machinery of the solar PV module production system with annual production capacity of 3,000 MW to be delivered in three batches for a total contract sum of US\$2.55 billion. On the same date, the Company entered into a subscription agreement (the “2010 Subscription Agreement”) with Hanergy Holding. According to the 2010 Subscription Agreement, subject to the fulfilment or waiver of the conditions set out in the 2010 Subscription Agreement, Hanergy Holding is entitled to subscribe for an aggregate of 4,911,528,960 shares of the Company, in three tranches, namely the first batch of 1,964,611,584 shares, the second batch of 1,473,458,688 shares and the third batch of 1,473,458,688 shares. The subscription price is HK\$0.239 per share. Pursuant to the supplement entered into on 18 September 2011, the exercise price for the second batch and the third tranche of the 2010 Subscription Agreement was revised to HK\$0.12 per share and HK\$0.1 per share, respectively. The exercise period of the 2010 Subscription Agreement was in the following manner:

28. 股本(續)

(b) 認購權

於二零一零年五月二十日，福建鉑陽(本公司之間接全資附屬公司)與漢能控股訂立銷售合同(「二零一零年銷售合同」)，據此，福建鉑陽已同意出售而漢能控股已同意購入年度總產能為3,000MW之太陽能光伏組件生產系統之整套設備、工具及機器，將分三批交付，總合同金額為25.5億美元。於同日，本公司與漢能控股訂立認購協議(「二零一零年認購協議」)。根據二零一零年認購協議，待二零一零年認購協議所載條件達成或獲豁免，漢能控股有權分三批認購合共4,911,528,960股本公司股份，即第一批1,964,611,584股、第二批1,473,458,688股及第三批1,473,458,688股。認購價為每股0.239港元。根據於二零一一年九月十八日訂立之補充協議，二零一零年認購協議之第二批及第三批之行使價分別修訂為每股0.12港元及每股0.1港元。二零一零年認購協議之行使期如下：

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28. SHARE CAPITAL (continued)

(b) Subscription rights (continued)

Exercise periods	行使期	Number of rights 認購權數目
On the third business day after the payment by Hanergy Holding in respect of the 2010 Sales Contract received by Apollo Fujian to be not less than HK\$3.3 billion	福建鉑陽收到漢能控股就二零一零年銷售合同支付不少於33億港元後第三個營業日	1,964,611,584
On the third business day after i) the payment by Hanergy Holding in respect of the 2010 Sales Contract received by Apollo Fujian to be not less than HK\$5 billion and ii) the down payment of not less than 8% of the consideration of the second batch production lines in respect of the 2010 Sales Contract, or upon Hanergy Holding having given an irrevocable undertaking to pay within 24 months from the date to complete such batch	i) 福建鉑陽收到漢能控股於就二零一零年銷售合同支付不少於50億港元；及ii) 就二零一零年銷售合同支付不少於第二批生產線代價8%之款項作為預付定金，或於漢能控股不可撤回地承諾後於該批完成日期起計24個月內支付該款項後第三個營業日	1,473,458,688
On the third business day after i) the payment by Hanergy Holding in respect of the 2010 Sales Contract received by Fujian Apollo to be not less than HK\$6 billion and ii) the down payment of not less than 8% of the consideration of the third batch production lines in respect of the 2010 Sales Contract, or upon Hanergy Holding having given an irrevocable undertaking to pay within 24 months from the date to complete such batch	i) 福建鉑陽收到漢能控股就二零一零年銷售合同支付不少於60億港元；及ii) 就二零一零年銷售合同支付不少於第三批生產線代價8%之款項作為預付定金，或於漢能控股不可撤回地承諾後於該批完成日期起計24個月內支付該款項後第三個營業日	1,473,458,688
		4,911,528,960

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28. SHARE CAPITAL (continued)

(b) Subscription rights (continued)

On 18 September 2011, Apollo Fujian and Hanergy Holding entered into a sales contract (the “2011 Sales Contract”) in relation to, among others, the sale of the turnkey equipment, tools and machinery of the solar PV module production system with annual production capacity of 7,000 MW to be delivered in three batches and the provisions of the technical and engineering support, training services and the grant of a software licence in relation to the equipment by Apollo Fujian to Hanergy Holding, for an aggregate consideration of US\$5.95 billion. On the same date, the Company entered into a subscription agreement (the “2011 Subscription Agreement”) with Hanergy Holding. According to the 2011 Subscription Agreement, subject to the fulfilment or waiver of the conditions set out in the 2011 Subscription Agreement, Hanergy Holding is entitled to subscribe for, in three tranches, an aggregate of 18,000,000,000 shares of the Company at the subscription price of HK\$0.1 per share. The exercise period of the 2011 Subscription Agreement was in the following manner:

28. 股本(續)

(b) 認購權(續)

於二零一一年九月十八日，福建鉑陽與漢能控股訂立銷售合同(「二零一一年銷售合同」)，內容有關(其中包括)銷售年度總產能為7,000MW之太陽能光伏組件生產系統之整套設備、工具及機器，將分三批交付，以及福建鉑陽向漢能控股提供有關設備之技術及工程支援服務、培訓服務及授出軟件使用權，總代價為59.5億美元。於同日，本公司與漢能控股訂立認購協議(「二零一一年認購協議」)。根據二零一一年認購協議，待二零一一年認購協議所載條件達成或獲豁免，漢能控股有權分三批認購合共18,000,000,000股本公司股份，認購價為每股0.1港元。二零一一年認購協議事項之行使期如下：

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28. SHARE CAPITAL (continued)

(b) Subscription rights (continued)

Exercise periods	行使期	Number of rights 認購權數目
Within one year after the cumulative consideration in respect of the 2011 Sales Contract received by Fujian Apollo to be not less than HK\$1,800,000,000	福建鉑陽收到二零一一年銷售合同之累計代價不少於1,800,000,000港元後一年內	6,000,000,000
Within one year after the cumulative consideration in respect of the 2011 Sales Contract received by Fujian Apollo to be not less than HK\$3,600,000,000	福建鉑陽收到二零一一年銷售合同之累計代價不少於3,600,000,000港元後一年內	6,000,000,000
Within one year after the cumulative consideration in respect of the 2011 Sales Contract received by Fujian Apollo to be not less than HK\$6,300,000,000	福建鉑陽收到二零一一年銷售合同之累計代價不少於6,300,000,000港元後一年內	6,000,000,000
		18,000,000,000

On 28 September 2011, the Company and Hanergy Holding entered into a subscription agreement (“**Incentive Agreement**”), pursuant to which Hanergy Holding is entitled to subscribe for 3 billion shares of the Company at the subscription price of HK\$0.10 per share, upon the fulfilment of the conditions precedent under the Incentive Agreement, and among others, the completion of subscription for all three batches of the 2011 Subscription Agreement by 31 October 2013. On 31 October 2013, the Company and Hanergy Holding entered into a supplemental agreement to extend the expiry date from 31 October 2013 to 31 October 2014.

於二零一一年九月二十八日，本公司與漢能控股訂立認購協議（「**獎勵協議**」），據此，待獎勵協議之先決條件（其中包括於二零一三年十月三十一日前完成二零一一年認購協議之所有三批認購）達成後，漢能控股有權按每股0.10港元之認購價認購30億本公司股份。於二零一三年十月三十一日，本公司與漢能控股訂立補充協議，以將到期日由二零一三年十月三十一日延後至二零一四年十月三十一日。

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28. SHARE CAPITAL (continued)

(b) Subscription rights (continued)

On 28 December 2012, the ordinary resolution approving the Whitewash Waiver was duly passed by the independent shareholders of the Company. From that date, all the pre-conditions of the 2010 Subscription Agreement and 2011 Subscription Agreement have been substantially met except obtaining by the Company of the written consent from all the bondholders of the convertible bonds to waive any adjustment to the conversion price pursuant to the provisions of the convertible bonds issued in 2009 (the "Convertible Bonds") caused by the transactions contemplated under the 2010 Subscription Agreement and 2011 Subscription Agreement (the "Convertible Bondholders' Waiver").

On 27 February 2013, pursuant to the obtaining of the Convertible Bondholders' Waiver and the cumulative payment received by Apollo Fujian over HK\$3.3 billion and HK\$1.8 billion in respect of the 2010 Sales Contract and the 2011 Sales Contract, respectively, the Company completed the issue and allotment of the first tranche subscription of 1,964,611,584 shares of the 2010 Subscription Agreement and the first tranche subscription of 6,000,000,000 shares of the 2011 Subscription Agreement in respect of the 2010 sales contract and the 2011 sales contract, respectively to Hanergy Investment, a company wholly-owned by Hanergy Affiliates, at the subscription prices of HK\$0.239 per share and HK\$0.1 per share, respectively.

On 24 September 2013, pursuant to the obtaining of the Convertible Bondholders' Waiver and the cumulative payment received by Apollo Fujian over HK\$3.6 billion in respect of the 2011 Sales Contract, the second batch of the 6,000,000,000 shares of the 2011 Subscription Agreement was issued and allotted to Hanergy Investment, at the subscription price of HK\$0.1 per share.

28. 股本(續)

(b) 認購權(續)

於二零一二年十二月二十八日，批准清洗豁免之普通決議案已獲本公司獨立股東正式通過。由當日起，二零一零年認購協議及二零一一年認購協議之所有先決條件已大致上達成，惟本公司向二零零九年已發行之可換股債券(「可換股債券」)所有債券持有人取得書面同意，豁免因根據二零一零年認購協議及二零一一年認購協議擬進行之交易導致根據可換股債券之條文對兌換價作出之任何調整除外(「可換股債券持有人豁免」)。

於二零一三年二月二十七日，根據取得可換股債券持有人豁免，以及福建鉑陽就二零一零年銷售合同及二零一一年銷售合同分別收到累計付款超過33億港元及18億港元，本公司分別就二零一零年銷售合同及二零一一年銷售合同完成分別按認購價每股0.239港元及每股0.1港元向漢能聯屬公司全資擁有之公司Hanergy Investment發行及配發二零一零年認購協議項下第一批認購1,964,611,584股股份及二零一一年認購協議項下第一批認購6,000,000,000股股份。

於二零一三年九月二十四日，根據取得可換股債券持有人豁免，以及福建鉑陽就二零一一年銷售合同收到累計付款不少於36億港元，二零一一年認購協議之第二批6,000,000,000股股份已按認購價每股0.1港元發行及配發予Hanergy Investment。

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28. SHARE CAPITAL (continued)

(b) Subscription rights (continued)

On 2 September 2014, pursuant to the obtaining of the Convertible Bondholders' Waiver and the cumulative payment received by Apollo Fujian over HK\$6.3 billion in respect of the 2011 Sales Contract, the third batch of the 6,000,000,000 shares of the 2011 Subscription Agreement was issued and allotted to Hanergy Investment, at the subscription price of HK\$0.1 per share. Upon the completion for all three batches of the 2011 Subscription Agreement, 3,000,000,000 shares of the Incentive Agreement were issued and allotted to Hanergy Investment, at the subscription price of HK\$0.1 per share.

The following table summarises the subscription right transactions during the year:

28. 股本(續)

(b) 認購權(續)

於二零一四年九月二日，因取得可換股債券持有人豁免，加上福建鎔陽就二零一一年銷售合同收到之累計款項超過63億港元，二零一一年認購協議下第三批6,000,000,000股股份已按認購價每股0.1港元發行及配發予漢能投資。完成二零一一年認購協議內全部三批後，獎勵協議下之3,000,000,000股股份已按認購價每股0.1港元發行及配發予漢能投資。

下表概述年內進行之認購權交易：

		Subscription rights outstanding 未行使 認購權 '000 千份	Weighted average exercise price 加權平均 行使價 HK\$ 港元
Outstanding at 31 December 2016 and 1 January 2017	於二零一六年十二月三十一日及 二零一七年一月一日尚未行使	2,946,917	0.11
Outstanding at 31 December 2017 and 1 January 2018	於二零一七年十二月三十一日及 二零一八年一月一日尚未行使	2,946,917	0.11
Outstanding at 31 December 2018	於二零一八年十二月三十一日 尚未行使	2,946,917	0.11



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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

29. SHARE OPTIONS

(a) Share option scheme

Pursuant to a resolution passed on 28 August 2007, the Company adopted a share option scheme (the “Scheme”) relating to the grant of share options to directors, employees and other participants (the “Grantee”) including consultants, advisers, suppliers and customers of the Group.

The directors may specify the minimum period, if any, for which an option must be held or the performance targets, if any, that must be achieved by the Grantee before the option can be exercised.

Share options may be granted without any initial payment and at an exercise price (subject to adjustments as provided therein) equal to the highest of (i) the nominal value of the shares; (ii) the closing price per share as stated in the Stock Exchange’s daily quotation sheet on the date of the grant of the share option; and (iii) the average of the closing prices per share as stated in the Stock Exchange’s daily quotation sheets for the five business days immediately preceding the date of the grant of the share option.

The maximum number of shares which may be issued upon the exercise of all options to be granted under the Scheme and any other share option scheme(s) of the Company shall not exceed 10% of the share capital of the Company in issue on 28 August 2007, the date of adoption of the Scheme, unless a refresh approval of the shareholders is obtained.

29. 購股權

(a) 購股權計劃

根據於二零零七年八月二十八日通過之決議案，本公司採納一項購股權計劃（「該計劃」）向本集團之董事、僱員及其他參與者（「承授人」，包括顧問、諮詢人、供應商及客戶）授出購股權。

董事或會指定購股權可獲行使前必須持有之最短限期（如有）或承授人必須達致之表現目標（如有）。

購股權可毋須支付任何初步款項而授出，行使價（可按當中規定之方式調整）相等於下列三者中之最高者：(i) 股份之面值；(ii) 股份於購股權授出當日在聯交所每日報價表所述之每股收市價；及(iii) 股份於緊接購股權授出當日前五個營業日於聯交所每日報價表所述之每股平均收市價。

因行使根據該計劃及本公司任何其他購股權計劃將予授出之全部購股權而可能發行之股份最高數目不得超過本公司於二零零七年八月二十八日（即採納該計劃之日期）之已發行股本之10%，惟已取得股東之更新批准除外。

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

29. SHARE OPTIONS (continued)

(a) Share option scheme (continued)

Pursuant to the special general meeting held on 11 June 2010, the resolution approving the renewal of the 10% of the general limit was passed by the shareholders and the maximum number of shares which may be issued upon the exercise of all options to be granted under the Scheme and any other share option scheme(s) of the Company shall not exceed 10% of the share capital of the Company in issue on 11 June 2010. The total number of shares available for issue under the Scheme is 461,224,947 (representing 10% of the issued share capital of the Company as at the date of passing the resolution to refresh the 10% limit).

The maximum number of the shares (issued and to be issued) in respect of which share options may be granted under the Scheme to any one Grantee in any 12-month period shall not exceed 1% of the share capital of the Company in issue on the last date of such 12-month period unless approval of the shareholders of the Company has been obtained in accordance with the Listing Rules.

The Scheme was approved by the shareholders of the Company on 28 August 2007 and had a life of 10 years until 27 August 2017.

29. 購股權(續)

(a) 購股權計劃(續)

根據於二零一零年六月十一日舉行之股東特別大會，批准更新10%一般上限之決議案獲股東批准，而因行使根據該計劃及本公司任何其他購股權計劃將予授出之全部購股權而可能發行之股份最高數目不得超過本公司於二零一零年六月十一日之已發行股本之10%。可供根據該計劃發行之股份總數為461,224,947股(佔本公司於通過更新10%上限之決議案當日之已發行股本10%)。

於任何12個月期間根據該計劃授予任何一名承授人之購股權所涉及之股份最高數目(已發行及將予發行)不得超過本公司於該12個月期間最後一日之已發行股本之1%，惟根據上市規則已取得本公司股東之批准除外。

該計劃已於二零零七年八月二十八日獲本公司股東批准，為期10年，直至二零一七年八月二十七日為止。

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

29. SHARE OPTIONS (continued)

(b) Share options granted to the consultants and the management of the Group

The following share-based payment arrangements were outstanding during the year:

29. 購股權(續)

(b) 授予本集團顧問及管理層之購股權

以下以股份為基礎之付款安排於年內尚未行使：

		2018 二零一八年		2017 二零一七年	
		Weighted average exercise price per share 每股加權 平均行使價 HK\$ 港元	Number of options 購股權數目 '000 千股	Weighted average exercise price per share 每股加權 平均行使價 HK\$ 港元	Number of options 購股權數目 '000 千股
At 1 January	於一月一日	3.5435	46,560	3.4088	67,080
Granted during the year	年內授出	-	-	-	-
Exercised during the year	年內行使	-	-	-	-
Lapsed during the year	年內失效	5.0353	(7,960)	2.9632	(14,290)
Expired during the year	年內到期	3.1209	(5,220)	3.4233	(6,230)
Outstanding at 31 December	於十二月三十一日 尚未行使	3.2539	33,380	3.5435	46,560
Exercisable at 31 December	於十二月三十一日 可予行使	3.9830	1,150	3.4233	6,230

At the end of the reporting period, the Company had 33,380,000 share options outstanding under the aforesaid scheme as listed in the table above. The exercise in full of the outstanding share options would, under the present capital structure of the Company, result in the issue of 33,380,000 additional ordinary shares of the Company and additional share capital of HK\$83,000 (before issue expenses).

於報告期末，本公司根據該上述計劃有33,380,000份購股權尚未行使。倘全面行使尚未行使購股權，按照本公司現有股本架構，將發行33,380,000股本公司新增普通股，並新增股本83,000港元（未扣除發行開支）。

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

29. SHARE OPTIONS (continued)

(b) Share options granted to the consultants and the management of the Group (continued)

The exercise prices and exercise periods of the share options outstanding as at the end of the reporting period are as follows:

		Number of options 購股權數目	Exercise price* 行使價*	Exercise period 行使期
Granted to 授予		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元	HK\$ per share 每股港元
Management of the Group II (i)	本集團 管理層II (i)	18,960	22,960	1.716 27 October 2014 to 31 October 2019 二零一四年十月二十七日至 二零一九年十月三十一日
Management of the Group III (ii)	本集團 管理層III (ii)	7,140	11,360	3.61 30 January 2015 to 29 January 2020 二零一五年一月三十日至 二零二零年一月二十九日
Management of the Group IV (iii)	本集團 管理層IV (iii)	7,280	12,240	6.91 16 April 2015 to 15 April 2020 二零一五年四月十六日至 二零二零年四月十五日
		33,380	46,560	

* The exercise price of the share options is subject to adjustment in the case of rights on bonus issues, or other similar changes in the Company's share capital.

29. 購股權(續)

(b) 授予本集團顧問及管理層之購股權(續)

於報告期末尚未行使之購股權之行使價及行使期如下：

* 購股權之行使期可於紅股發行或本公司股本出現其他類似變動時作出調整。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

29. SHARE OPTIONS (continued)

(b) Share options granted to the consultants and the management of the Group (continued)

Notes:

- (i) On 27 October 2014, the Company announced to grant 68,300,000 share options to the employees of the Group for HK\$1 as a consideration by each of the Grantees at an exercise price of HK\$1.716 per share under the Scheme approved by the shareholders of the Company on 28 August 2007 (note 29(a)). As at 31 December 2014, 63,100,000 share options were validly accepted.

The exercise periods of the share options granted to the employees of the Group are as follows:

Exercise periods	行使期	Number of options 購股權數目 '000 千份
27 October 2014 to 31 October 2015	二零一四年十月二十七日至二零一五年十月三十一日	6,310
1 November 2015 to 31 October 2016	二零一五年十一月一日至二零一六年十月三十一日	6,310
1 November 2016 to 31 October 2017	二零一六年十一月一日至二零一七年十月三十一日	6,310
1 November 2017 to 31 October 2018	二零一七年十一月一日至二零一八年十月三十一日	6,310
1 November 2018 to 31 October 2019	二零一八年十一月一日至二零一九年十月三十一日	37,860
		63,100

29. 購股權(續)

(b) 授予本集團顧問及管理層之購股權(續)

附註：

- (i) 於二零一四年十月二十七日，本公司根據本公司股東於二零一七年八月二十八日批准之該計劃，向本集團僱員公佈授出68,300,000份購股權，代價為每位承授人1港元，行使價為每股1.716港元(附註29(a))。於二零一四年十二月三十一日，63,100,000份購股權被有效接納。

授予本集團僱員之購股權之行使期如下：

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

29. SHARE OPTIONS (continued)

(b) Share options granted to the consultants and the management of the Group (continued)

Notes: (continued)

- (ii) On 30 January 2015, the Company announced to grant 19,300,000 share options to the employees of the Group for HK\$1 as consideration by each of the Grantees at an exercise price of HK\$3.61 per share under the Scheme approved by the shareholders of the Company on 28 August 2007 (note 29(a)). As at 31 December 2015, 17,800,000 share options were validly accepted.

The exercise periods of the share options granted to the employees of the Group are as follows:

Exercise periods	行使期	Number of options 購股權數目 '000 千份
30 January 2015 to 29 January 2016	二零一五年一月三十日至二零一六年一月二十九日	1,780
30 January 2016 to 29 January 2017	二零一六年一月三十日至二零一七年一月二十九日	1,780
30 January 2017 to 29 January 2018	二零一七年一月三十日至二零一八年一月二十九日	1,780
30 January 2018 to 29 January 2019	二零一八年一月三十日至二零一九年一月二十九日	1,780
30 January 2019 to 29 January 2020	二零一九年一月三十日至二零二零年一月二十九日	10,680
		17,800

29. 購股權(續)

(b) 授予本集團顧問及管理層之購股權(續)

附註：(續)

- (ii) 於二零一五年一月三十日，本公司根據本公司股東於二零零七年八月二十八日批准之該計劃，向本集團僱員公佈授出19,300,000份購股權，代價為每位承授人1港元，行使價為每股3.61港元(附註29(a))。於二零一五年十二月三十一日，17,800,000份購股權被有效接納。

授予本集團僱員之購股權之行使期如下：

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

29. SHARE OPTIONS (continued)

(b) Share options granted to the consultants and the management of the Group (continued)

Notes: (continued)

- (iii) On 16 April 2015, the Company announced to grant 25,200,000 share options to the employees of the Group for HK\$1 as a consideration by each of the Grantees at an exercise price of HK\$6.91 per share under the Scheme approved by the shareholders of the Company on 28 August 2007 (note 29(a)). As at 31 December 2015, 24,400,000 share options were validly accepted.

The exercise periods of the share options granted to the employees of the Group are as follows:

Exercise periods	行使期	Number of options 購股權數目 '000 千份
16 April 2015 to 15 April 2016	二零一五年四月十六日至二零一六年四月十五日	2,440
16 April 2016 to 15 April 2017	二零一六年四月十六日至二零一七年四月十五日	2,440
16 April 2017 to 15 April 2018	二零一七年四月十六日至二零一八年四月十五日	2,440
16 April 2018 to 15 April 2019	二零一八年四月十六日至二零一九年四月十五日	2,440
16 April 2019 to 15 April 2020	二零一九年四月十六日至二零二零年四月十五日	14,640
		24,400

29. 購股權(續)

(b) 授予本集團顧問及管理層之購股權(續)

附註：(續)

- (iii) 於二零一五年四月十六日，本公司根據本公司股東於二零零七年八月二十八日批准之該計劃，向本集團僱員公佈授出25,200,000份購股權，代價為每位承授人1港元，行使價為6.91港元(附註29(a))。於二零一五年十二月三十一日，24,400,000份購股權被有效接納。

授予本集團僱員之購股權之行使期如下：

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29. SHARE OPTIONS (continued)

(c) Other share options

Besides the above mentioned share options issued, the Company granted the following share options as financial instruments to the grantees.

(i) Other Options III

On 6 September 2012, the Company and Hanergy Holding entered into an option agreement, pursuant to which the Company has conditionally agreed to grant Hanergy Holding (or such person(s) at its direction) options (the “Other Options III”) to subscribe for an aggregate of 600,000,000 shares of the Company at the exercise price of HK\$0.25 per share. The Company and Hanergy Holding entered into this option agreement to grant options as an incentive for the smooth execution and expediting the transactions contemplated under the 2010 Sales Contract.

On 31 December 2012, after the fulfilment of the conditions precedent to the option agreement, the Company had granted the Other Options III to Hanergy Investment (Hanergy Holding’s designated entity). The Other Options III were not granted under the Scheme. They will lapse upon the fifth anniversary of the date of grant.

29. 購股權(續)

(c) 其他購股權

根據上述已發行之以股份為基礎購股權，本公司向承授人授出以下購股權作為金融工具。

(i) 其他購股權III

於二零一二年九月六日，本公司與漢能控股訂立購股權協議，據此，本公司已有條件地同意向漢能控股(或其所指示之有關人士)授出購股權(「其他購股權III」)，以按每股0.25港元之行使價認購合共600,000,000股本公司股份。本公司與漢能控股訂立此購股權協議，以授出購股權作為順利簽立及加快根據二零一零年銷售合同擬進行之交易之激勵。

於二零一二年十二月三十一日，達成購股權協議之先決條件後，本公司已向Hanergy Investment(漢能控股指定之實體)授出其他購股權III。其他購股權III並非根據計劃授出，並將於授出日期五週年失效。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

29. SHARE OPTIONS (continued)

(c) Other share options (continued)

(i) Other Options III (continued)

For the Other Options III granted to Hanergy Investment on 31 December 2012, the exercise periods are as follows:

Exercise periods	行使期	Number of options 購股權數目 '000 千股
31 December 2012 to 30 December 2017	二零一二年十二月三十一日至 二零一七年十二月三十日	300,000
31 December 2013 to 30 December 2017	二零一三年十二月三十一日至 二零一七年十二月三十日	150,000
31 December 2014 to 30 December 2017	二零一四年十二月三十一日至 二零一七年十二月三十日	150,000
		600,000

The following table summarises the movement of the Other Options III during the year ended 31 December 2018:

		2018 二零一八年		2017 二零一七年	
		Weighted average exercise price per share 每股加權 平均行使價 HK\$ 港元	Number of options 購股權數目 '000 千股	Weighted average exercise price per share 每股加權 平均行使價 HK\$ 港元	Number of options 購股權數目 '000 千股
At 1 January	於一月一日	-	-	0.25	286,625
Exercised during the year	年內行使	-	-	0.25	(286,625)
Expired during the year	年內屆滿	-	-	-	-
Outstanding at 31 December	於十二月三十一日 尚未行使	-	-	-	-
Exercisable at 31 December	於十二月三十一日 可予行使	-	-	-	-

29. 購股權(續)

(c) 其他購股權(續)

(i) 其他購股權III(續)

於二零一二年十二月三十一日授予Hanergy Investment之其他購股權III之行使期如下：

下表概述其他購股權III於截至二零一八年十二月三十一日止年度之變動：

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30. RESERVES

The amounts of the Group's reserves and the movements therein for the current year are presented in the consolidated statement of changes in equity on pages 130 and 131 of the consolidated financial statements.

(i) Capital redemption reserve

The capital redemption reserve represents an amount equivalent to the par value of the ordinary shares cancelled as a result of the share repurchase.

(ii) Reserve funds

Pursuant to the relevant laws and regulations in the PRC, a portion of the profits of the Company's subsidiaries in the PRC has been transferred to the reserve funds which are restricted to use to offset against accumulated losses or to increase capital. As at 31 December 2018, approximately HK\$375,950,000 (2017: HK\$168,498,000) has been recognised to the reserve funds.

(iii) Contributed surplus

The contributed surplus arose from the capital reorganisation in prior years.

(iv) Share option reserve

The share option reserve comprises the fair value of share options granted which are yet to be exercised, as further explained in the accounting policy for share-based payments in note 2.4 to the consolidated financial statements. The amount will be transferred either to the share premium account when the related options are exercised, or retained profits should the related options expire or lapse.

30. 儲備

本集團於本年度之儲備金額及其變動載於綜合財務報表第130頁及第131頁之綜合權益變動表。

(i) 資本贖回儲備

資本贖回儲備之金額等於因股份購回而註銷之普通股面值。

(ii) 儲備金

根據中國相關法例及法規，本公司之中國附屬公司之部分溢利已轉撥至具限制用途之儲備金，以抵銷累計虧損或增加資本。於二零一八年十二月三十一日，約375,950,000港元(二零一七年：168,498,000港元)已於儲備金中確認。

(iii) 實繳盈餘

實繳盈餘乃產生於過往年度之資本重組之業務合併。

(iv) 購股權儲備

購股權儲備包括已授出但未行使之購股權之公平值，按綜合財務報表附註2.4有關股份支付之會計政策進一步闡述。該金額將於相關購股權獲行使時轉撥至股份溢價賬，或於相關購股權屆滿或失效時轉撥至留存溢利。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

31. NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

Changes in liabilities arising from financing activities for the year ended 31 December 2018:

		Interest-bearing bank and other borrowings 銀行及其他附息借款 HK\$'000 千港元	Other payables and accruals 其他應付款項及應計費用 HK\$'000 千港元
At 1 January 2018	於二零一八年一月一日	1,126,008	7,073,562
Changes from financing cash flows	融資現金流量之變動	(417,884)	(11,881)
Increase classified as operating cash flows	分類為經營現金流量增加	-	2,059,005
Reclassified to contract liabilities	重新分類至合同負債		(5,239,848)
Foreign exchange movement	外匯波動	(21,331)	78,179
At 31 December 2018	於二零一八年十二月三十一日	686,793	3,959,017

Changes in liabilities arising from financing activities for the year ended 31 December 2017:

		Interest-bearing bank and other borrowings 銀行及其他附息借款 HK\$'000 千港元	Other payables and accruals 其他應付款項及應計費用 HK\$'000 千港元
At 1 January 2017	於二零一七年一月一日	1,050,635	2,108,503
Changes from financing cash flows	融資現金流量之變動	51,379	31,314
Increase classified as operating cash flows	分類為經營現金流量增加	-	4,697,458
Decrease classified as investing cash flows	分類為投資現金流量減少	-	(39,149)
Foreign exchange movement	外匯波動	23,994	275,436
At 31 December 2017	於二零一七年十二月三十一日	1,126,008	7,073,562

31. 綜合現金流量表附註

截至二零一八年十二月三十一日止年度，融資活動所產生之負債變動：

Interest-bearing bank and other borrowings 銀行及其他附息借款 HK\$'000 千港元	Other payables and accruals 其他應付款項及應計費用 HK\$'000 千港元
1,126,008	7,073,562
(417,884)	(11,881)
-	2,059,005
	(5,239,848)
(21,331)	78,179
686,793	3,959,017

截至二零一七年十二月三十一日止年度，融資活動所產生之負債變動：

Interest-bearing bank and other borrowings 銀行及其他附息借款 HK\$'000 千港元	Other payables and accruals 其他應付款項及應計費用 HK\$'000 千港元
1,050,635	2,108,503
51,379	31,314
-	4,697,458
-	(39,149)
23,994	275,436
1,126,008	7,073,562

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

32. OPERATING COMMITMENTS

(a) Operating lease commitments

As lessee

The Group leases a number of properties, warehouses and equipment under operating leases, with leases negotiated for an initial period of six months to ten years, with an option to renew the lease and renegotiate the terms at the expiry dates or at dates as mutually agreed between the Group and the respective landlords/owners. None of the leases include contingent rentals.

At 31 December 2018, the Group had total future minimum lease payments under non- cancellable operating leases falling due as follows:

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Within one year	一年內	535,357	223,100
In the second to fifth years, inclusive	第二至五年(包括首尾兩年)	1,783,761	1,243,292
Over five years	五年以上	1,075,056	736,804
		3,394,174	2,203,196

(b) Other Commitments

At 31 December 2018, the Group had total other commitments of HK\$6,378,101,000 under the non-cancellable contracts to purchase equipment for turnkey production line construction contracts from third party suppliers, raw materials for photovoltaic power generation station building projects and PV modules from Hanergy Affiliates.

At 31 December 2017, the Group had total other commitments of HK\$524,891,000 under the non-cancellable contracts to purchase raw materials for the photovoltaic power generation station building projects and PV modules from Hanergy Affiliates.

32. 經營承擔

(a) 經營租賃承擔

作為承租人

本集團根據經營租賃租用若干物業、倉庫及設備，租賃初步為期六個月至十年，可選擇於租約屆滿當日或本集團與有關業主雙方同意之日續租及重新磋商條款。該等租賃概不包括或然租金。

於二零一八年十二月三十一日，本集團根據不可撤銷經營租賃之未來最低租金總額將於下列期限屆滿：

(b) 其他承擔

於二零一八年十二月三十一日，本集團有根據向第三方供應商就整套生產線建設合同購買設備、就建造光伏發電站項目購買原料及向漢能聯屬公司購買光伏組件之不可撤銷合同之其他承擔總額為6,378,101,000港元。

於二零一七年十二月三十一日，本集團有根據就建造光伏發電站項目向漢能聯屬公司購買原料及購買光伏組件之不可撤銷合同之其他承擔總額為524,891,000港元。

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33. CAPITAL COMMITMENTS

33. 資本承擔

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Acquisition of items of property, plant and equipment	收購物業、廠房 及設備項目		
– Contracted, but not provided for	– 已訂約但未撥備	136,142	79,727

34. RELATED PARTY TRANSACTIONS

34. 關聯人士交易

(a) In addition to the transactions and balances detailed elsewhere in these consolidated financial statements, the Group had the following material transactions with related parties during the year.

(a) 除於此等綜合財務報表其他部分所詳述之交易及結餘外，本集團於年內與關聯人士進行以下重大交易。

		Notes 附註	2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Manufacturing of turnkey production lines	製造整套生產線	(i)	–	1,062,467
Rental expense	租金開支	(ii)	3,264	820
Equipment lease expense	設備租賃開支	(iii)	2,587	3,154
Purchase/prepayments for purchase of photovoltaic modules	採購光伏組件之採購/ 預付款項	(iv)	92,466	144,552
Office service income	辦公室服務收入	(v)	6,349	6,312
Sales of equipment	銷售設備		–	59
Interest expenses	利息支出	(vi)	6,572	18,534

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

34. RELATED PARTY TRANSACTIONS

(continued)

(a) (continued)

Notes:

- (i) The revenue from the construction of turnkey production lines was receivable from Hanergy Affiliates. The sales were made in accordance with the terms as stipulated in the relevant sales contracts.
- (ii) The continuing connected transaction between Sichuan Hanergy and Apollo Fujian was transferred to Sichuan Hanergy and Juntai Innovation (Beijing) Technology Limited (“Juntai Beijing”), a subsidiary of the Group. Therefore, the rental expense represents the rental of office and dormitory by Juntai Beijing from Sichuan Hanergy in 2018.
- (iii) The continuing connected transaction between Sichuan Hanergy and Apollo Fujian was transferred to Sichuan Hanergy and Juntai Beijing, and therefore, the equipment lease expense represents the rental of a production line by Juntai Beijing from Sichuan Hanergy in 2018.
- (iv) The photovoltaic modules were purchased from Hanergy Holding and Hanergy Global Investment and Sales Pte. Ltd. (a Hanergy Holding’s affiliate) for the Group’s Downstream business.
- (v) Certain office administrative support provided to MiaSolé, Hanergy Holding’s affiliate, by MiaSolé Hi-Tech (“MHT”), a subsidiary of the Company.
- (vi) Other interest bearing borrowings provided by Hanergy Global Investment and Sales Pte Ltd, Hanergy Holding America Inc., Hanergy Investment and Hanergy Holding (HK) Ltd, Hanergy Holding’s affiliates.

34. 關聯人士交易 (續)

(a) (續)

附註：

- (i) 建設整套生產線之收入乃應收自漢能聯屬公司。銷售乃根據相關銷售合同訂明之條款進行。
- (ii) 四川漢能與福建鉑陽之持續關連交易已轉讓予四川漢能與本集團之附屬公司君泰創新(北京)科技有限公司(「北京君泰」)。因此，租金開支指北京君泰於二零一八年向四川漢能租用辦公室及宿舍之租金。
- (iii) 四川漢能與福建鉑陽之持續關連交易已轉讓予四川漢能與北京君泰，因此，設備租賃開支指北京君泰於二零一八年向四川漢能租用一條生產線之租金。
- (iv) 就本集團之下游業務來自漢能控股及Hanergy Global Investment and Sales Pte. Ltd. (漢能控股之聯屬公司) 購入光伏組件。
- (v) 本公司之附屬公司MiaSolé Hi-Tech (「MHT」) 向漢能控股之聯屬公司MiaSolé提供若干辦公室行政支持。
- (vi) Hanergy Global Investment And Sales Pte Ltd、Hanergy Holding America Inc.、Hanergy Investment及Hanergy Holding (HK) Ltd (漢能控股之聯屬公司) 提供之其他附息借款。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

34. RELATED PARTY TRANSACTIONS

(continued)

(b) Details of compensation of key management personnel of the Group are set out in note 12 to the consolidated financial statements.

The related party transactions in respect of items (a) above also constitute connected transactions or continuing connected transactions as defined in Chapter 14A of the Listing Rules.

35. FINANCIAL INSTRUMENTS BY CATEGORY

The carrying amounts of each of the categories of financial instruments as at the end of the reporting period are as follows:

Financial assets

2018

34. 關聯人士交易 (續)

(b) 本集團主要管理層薪酬詳情載於綜合財務報表附註12。

有關上述第(a)項之關聯人士交易亦構成上市規則第14A章所界定之關連交易或持續關連交易。

35. 金融工具按類別

各項金融工具的賬面值截至報告期末類別如下：

金融資產

二零一八年

		Total 合計 HK\$'000 千港元
Equity investments designated at fair value through other comprehensive income	指定為按公平值計入其他全面收益之權益投資	63,058
Debt instruments at fair value through other comprehensive income	按公平值計入其他全面收益之債務工具	
Bills receivable	應收票據	141,350
Financial assets at amortised cost	按攤銷成本計量的金融資產	
Trade receivables	貿易應收款項	3,934,877
Financial assets included in other receivables and deposits	計入其他應收款項及按金之金融資產	4,020,865
Restricted cash	受限制現金	64,678
Cash and cash equivalents	現金及現金等價物	359,049
		8,379,469
Total financial assets	金融資產總額	8,583,877

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

35. FINANCIAL INSTRUMENTS BY CATEGORY (continued)

Financial liabilities

2018

		Financial liabilities at amortised cost 按攤銷成本之金融負債 HK\$'000 千港元	Total 合計 HK\$'000 千港元
Trade and bills payables	貿易及票據應付款項	5,172,070	5,172,070
Financial liabilities included in other payables and accruals	金融負債包括其他應付款項及應計費用	889,612	889,612
Interest-bearing bank and other borrowings	銀行及其他付息借款	686,793	686,793
Other non-current liabilities	其他非流動負債	9,440	9,440

Financial assets

2017

		Loans and receivables 貸款及應收款項 HK\$'000 千港元	Available for-sale financial investments 可供出售金融投資 HK\$'000 千港元	Total 合計 HK\$'000 千港元
Available-for-sale financial investments	可供出售金融投資	-	66,097	66,097
Trade receivables	貿易應收款項	7,232,791	-	7,232,791
Financial assets included in other receivables and deposits	金融資產包括其他應收款項及按金	1,506,548	-	1,506,548
Bills receivable	應收票據	27,363	-	27,363
Restricted cash	受限制現金	144,340	-	144,340
Cash and cash equivalents	現金及現金等價物	2,496,760	-	2,496,760
		11,407,802	66,097	11,473,899

35. 金融工具按類別(續)

金融負債

二零一八年

金融資產

二零一七年

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

35. FINANCIAL INSTRUMENTS BY CATEGORY (continued)

Financial liabilities

2017

		Financial liabilities at amortised cost 按攤銷成本之金融負債 HK\$'000 千港元	Total 合計 HK\$'000 千港元
Trade and bills payables	貿易及票據應付款項	1,737,876	1,737,876
Financial liabilities included in other payables and accruals	金融負債包括其他應付款項及應計費用	670,492	670,492
Interest-bearing bank and other borrowings	銀行及其他付息借款	1,126,008	1,126,008
Other non-current liability	其他非流動負債	20,049	20,049
		3,554,425	3,554,425

35. 金融工具按類別(續)

金融負債

二零一七年

36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group is exposed to financial risks through its use of financial instruments in its ordinary course of operations and in its investment activities. The financial risks include market risk (including foreign currency risk and interest rate risk), credit risk and liquidity risk.

Financial risk management is coordinated at the Group's headquarters, in close co-operation with the board of directors. The overall objectives in managing financial risks focus on securing the Group's short to medium term cash flows by minimising its exposure to financial markets.

36. 財務風險管理目標及政策

本集團透過於其日常營運過程及其投資活動中使用金融工具而面對財務風險。財務風險包括市場風險(包括外匯風險及利率風險)、信貸風險及流動資金風險。

財務風險管理主要在本集團總部協調，並與董事會緊密合作。整體之財務風險管理目的集中於保障本集團短期至中期之現金流，從而將面對金融市場風險減至最低。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

It is not the Group's policy to actively engage in the trading of financial instruments for speculative purposes. The Group's senior management works under the policies approved by the board of directors. It identifies ways to access financial markets and monitors the Group's financial risk exposures. Regular reports are provided to the board of directors.

Foreign currency risk

(i) *Transactions in foreign currencies and the Group's risk management policies*

The Group has transactional currency exposures. Such exposures arise from sales or purchases by operating units in currencies other than the units' functional currencies. Approximately 9% (2017: 66%) of the Group's sales were denominated in currencies other than the functional currencies of the operating units making the sale.

The Group reviews its foreign currency exposure regularly. No hedging or other alternatives have been implemented during the year.

The policies to manage foreign currency risk have been followed by the Group since prior years and are considered to be effective.

36. 財務風險管理目標及政策(續)

主動參與投機性質之金融工具交易並非本集團之政策。本集團之高級管理層按董事會批准之政策工作，確定評估金融市場及監察本集團金融風險之方法，並向董事會提供定期報告。

外幣風險

(i) *外幣交易及本集團之風險管理政策*

本集團承受交易性貨幣風險。該等風險來自經營單位以其功能貨幣以外之貨幣進行之買賣。本集團約9% (二零一七年：66%) 的銷售以銷售經營單位的功能貨幣以外的貨幣列值。

本集團定期檢討其外幣風險。年內並無進行對沖或其他安排。

外幣風險管理政策於過往數年一直由本集團沿用，且被認為行之有效。

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36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Foreign currency risk (continued)

(ii) Summary of exposure

Financial assets and liabilities denominated in foreign currencies and translated into Hong Kong dollars at the closing rates, are as follows:

	2018			2017			
	US\$ 美元 HK\$'000 千港元	EUR 歐元 HK\$'000 千港元	RMB 人民幣 HK\$'000 千港元	US\$ 美元 HK\$'000 千港元	RMB 人民幣 HK\$'000 千港元	EUR 歐元 HK\$'000 千港元	SGD 新加坡元 HK\$'000 千港元
Trade receivables	2,138,188	-	-	2,130,272	-	-	-
Contract assets/gross amount due from contract customers	1,194,342	-	-	2,400,660	-	-	-
Cash and bank balances	19,238	1,579	1,143	32,385	249	333	-
Trade and other payables	(853)	(28)	(6,629)	(848)	(6,948)	(4,747)	-
Interest-bearing bank and other borrowings	(21,854)	-	-	-	-	-	(1,752)
Gross exposure arising from recognised financial instruments	3,329,061	1,551	(5,486)	4,562,469	(6,699)	(4,414)	(1,752)

(iii) Sensitivity analysis

The following table illustrates the sensitivity at the end of the reporting period to a reasonably possible change in the exchange rates of foreign currencies other than the functional currencies of the relevant operating units. The rates are used when reporting foreign currency risk internally to key management personnel and represents management's best assessment of the change in foreign currency exchange rates.

The sensitivity analysis of the Group's exposure to foreign currency risk at the end of the reporting period has been performed based on the assumed percentage changes in foreign currency exchange rates taking place at the beginning of the financial year and the assumption that such changes are held constant throughout the year. All other variables are held constant.

36. 財務風險管理目標及政策 (續)

外幣風險 (續)

(ii) 風險概要

以外幣計值且按收市匯率換算為港元之金融資產及負債如下：

(iii) 敏感度分析

下表闡述報告期末外匯(相關經營單位之功能貨幣除外)變動之合理可能變動之敏感度。比率為向主要管理人員內部呈報外匯風險時所用之比率，並為管理層對外幣匯率可能變動之最佳評估。

於報告期末，本集團所面對外幣風險之敏感度分析乃假設外幣匯率變動百分比於財政年初發生並假設有相關變動於整年內維持不變而進行。所有其他變數維持不變。

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36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Foreign currency risk (continued)

(iii) Sensitivity analysis (continued)

Appreciation/(depreciation) in US\$ against RMB

		2018 二零一八年		2017 二零一七年	
		HK\$'000 千港元	HK\$'000 千港元	HK\$'000 千港元	HK\$'000 千港元
		+5% 升5%	(-5%) (跌5%)	+5% 升5%	(-5%) (跌5%)
Profit for the year and retained profits	本年度溢利 及留存溢利	114,930	(114,930)	133,478	(133,478)

Appreciation/(depreciation) in RMB against HK\$

人民幣兌港元升值/(貶值)

		2018 二零一八年		2017 二零一七年	
		HK\$'000 千港元	HK\$'000 千港元	HK\$'000 千港元	HK\$'000 千港元
		+5% 升5%	(-5%) (跌5%)	+5% 升5%	(-5%) (跌5%)
Profit for the year and retained profits	本年度溢利 及留存溢利	(188)	188	(196)	196

Appreciation/(depreciation) in EUR against HK\$

歐元兌港元升值/(貶值)

		2018 二零一八年		2017 二零一七年	
		HK\$'000 千港元	HK\$'000 千港元	HK\$'000 千港元	HK\$'000 千港元
		+5% 升5%	(-5%) (跌5%)	+5% 升5%	(-5%) (跌5%)
Profit for the year and retained profits	本年度溢利 及留存溢利	53	(53)	(129)	129

36. 財務風險管理目標及政策(續)

外幣風險(續)

(iii) 敏感度分析(續)

美元兌人民幣升值/(貶值)

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Interest rate risk

(i) *Exposures to interest rate risk and the Group's risk management policies*

Interest rate risk relates to the risk that the fair value or cash flows of a financial instrument will fluctuate because of changes in market interest rates. Floating interest rate instruments will result in the Group facing cash flow interest rate risk. As at 31 December 2018, approximately HK\$243,515,000 (2017: HK\$657,776,000) of the Group's interest-bearing bank and other borrowings bore interest at fixed rates.

(ii) *Sensitivity analysis*

The following table illustrates the sensitivity of the Group's profit for the year and equity to a possible change in interest rates of +/-50 basis points (31 December 2017: +/-50 basis points), with effect from the beginning of financial the year. The calculation is based on the Group's amount of floating rate borrowings during the year. All other variables are held constant.

	2018 二零一八年		2017 二零一七年	
	HK\$'000 千港元	HK\$'000 千港元	HK\$'000 千港元	HK\$'000 千港元
	+50 basis points +50基點	-50 basis points -50基點	+50 basis points +50基點	-50 basis points -50基點
Profit for the year and retained profits				
本年度溢利及留存溢利	(1,520)	1,520	(1,370)	1,370

The assumed changes in interest rates are considered to be reasonable based on observation of current market conditions and represent management's assessment of reasonable change in interest rates over the period until the end of the next reporting period.

36. 財務風險管理目標及政策(續)

利率風險

(i) *利率風險承擔及本集團之風險管理政策*

利率風險指金融工具之公平值或現金流量因市場利率改變而出現波動之風險。浮動利率工具將令本集團面臨現金流量利率風險。於二零一八年十二月三十一日，約243,515,000港元(二零一七年：657,776,000)港元之本集團銀行及其他付息借款按固定利率計息。

(ii) *敏感度分析*

下表闡述自本財政年度初起，本集團之本年度溢利及權益對利率可能出現+/-50基點(二零一七年十二月三十一日：+/-50基點)變動之敏感度。有關運算乃以本集團於年內之浮動利率借款為基礎。所有其他變數維持不變。

利率之假設變動乃經觀察現行市況後視為合理之變動，並為管理層對截至下個報告期末止期間利率之合理變動之評估。

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36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Credit risk

(i) Summary of exposures

Credit risk refers to the risk that the counterparty to a financial instrument would fail to discharge its obligation under the terms of the financial instrument and cause a financial loss to the Group. The Group's exposure to credit risk mainly arises from granting credit to customers in the ordinary course of its operations and its investing activities.

The credit risk of the Group's other financial assets, which mainly comprise cash and cash equivalents, restricted cash, bills receivable, trade and other receivables and contract assets arises from the default of the counterparty, with a maximum exposure equal to the carrying amounts of these instruments.

Further quantitative data in respect of the Group's exposure to credit risk arising from trade receivables, contract assets and other receivables is disclosed in notes 17, 18 and 19 to the consolidated financial statements, respectively.

36. 財務風險管理目標及政策(續)

信貸風險

(i) 風險概要

信貸風險指金融工具之對方未能按金融工具之條款履行其責任，並導致本集團錄得財務虧損之風險。本集團之信貸風險主要來自於其日常營運過程及其投資活動中授予客戶信貸。

本集團其他金融資產(包括現金及現金等價物、受限制現金、應收票據、貿易及其他應收款項及合同資產)之信貸風險來自對方違約，最高風險相等於該等工具之賬面值。

有關本集團產生自貿易應收款項、合同資產及其他應收款項之信貸風險之進一步量化數據分別於綜合財務報表附註17、18及19披露。

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財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Credit risk (continued)

(i) Summary of exposures (continued)

Maximum exposure and year-end staging as at 31 December 2018:

The table below shows the credit quality and the maximum exposure to credit risk based on the Group's credit policy, which is mainly based on past due information unless other information is available without undue cost or effort, and year-end staging classification as at 31 December 2018. The amounts presented are gross carrying amounts for financial assets.

		12-month ECLs	Lifetime ECLs		Simplified approach	
		十二個月 預期信貸虧損	年期預期信貸虧損		簡易方法	
		Stage 1	Stage 2	Stage 3	HK\$'000	HK\$'000
		第一階段	第二階段	第三階段	千港元	千港元
		HK\$'000	HK\$'000	HK\$'000	千港元	千港元
		千港元	千港元	千港元	千港元	千港元
Contract assets*	合同資產*	-	-	-	12,100,913	12,100,913
Trade receivables*	貿易應收款項*	-	-	-	4,138,278	4,138,278
Bills receivable	應收票據	141,350	-	-	-	141,350
Financial assets included in other receivables and other assets	計入其他應收款項及其他資產之金融資產					
- Normal**	- 正常**	4,020,865	-	-	-	4,020,865
- Doubtful**	- 可疑**	-	-	12,139	-	12,139
Cash and cash equivalents	現金及現金等價物					
- Not yet past due	- 未到期	359,049	-	-	-	359,049
Restricted cash	受限制現金					
- Not yet past due	- 未到期	64,678	-	-	-	64,678
		4,585,942	-	12,139	16,239,191	20,837,272

36. 財務風險管理目標及政策 (續)

信貸風險 (續)

(i) 風險概要 (續)

截至二零一八年十二月三十一日的最高風險及年結階段：

下表載列基於本集團的信貸政策的信貸質素及最高信貸風險，主要基於逾期資料（除非其他資料可在無須付出不必要成本或努力的情況下可獲得），及於二零一八年十二月三十一日的年結階段分析。所呈列的有關金額指金融資產總賬面值。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Credit risk (continued)

(i) Summary of exposures (continued)

Maximum exposure and year-end staging as at 31 December 2018: (continued)

- * For trade receivables and contract assets to which the Group applies the simplified approach for impairment, information based on the provision matrix is disclosed below.

- ** The credit quality of the financial assets included in other receivables and other assets is considered to be “normal” when they are not past due and there is no information indicating that the financial assets had a significant increase in credit risk since initial recognition. Otherwise, the credit quality of the financial assets is considered to be “doubtful”.

36. 財務風險管理目標及政策(續)

信貸風險(續)

(i) 風險概要(續)

截至二零一八年十二月三十一日的最高風險及年結階段(續)

- * 就本集團應用簡易減值方法的應收貿易款項及合同資產，基於撥備矩陣的資料於下文披露。

- ** 倘計入其他應收款項及其他資產之金融資產未到期，且並無資料顯示金融資產自初始確認後信貸風險明顯增加，則其信貸質量被視為「正常」，否則金融資產的信貸質量被視為「可疑」。

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36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Credit risk (continued)

(i) Summary of exposures (continued)

During the year ended 31 December 2018, the Group's expected credit losses were determined as follows:

	Contract assets		Trade receivables			Financial assets included in other receivables and deposits, and bills receivable		
	應收整套生產	線客戶款項	貿易應收款項			計入其他應收款項及按金以及應收票據的金融資產		
	Contract assets	line customers	Due from other customers			Due from a third party	Due from others	
	合同資產	線客戶款項	應收其他客戶款項			應收一名第三方款項	應收其他人士款項	
	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000
	千港元	千港元	千港元	千港元	千港元	千港元	千港元	千港元
			Ageing within 1 year	Ageing within 1-2 years	Ageing within 2-3 years	Ageing within 3-4 years		
			賬齡為1年內	賬齡為1至2年	賬齡為2至3年	賬齡為3至4年		
Expected credit loss rate 預期信貸虧損率	minimal (極低)	minimal (極低)	minimal (極低)	35.39%	68.61%	100.00%	100.00%	minimal (極低)
Estimated total gross carrying amount 估計總賬面值	12,100,913	3,171,282	604,530	152,978	191,854	17,634	12,139	4,020,865
Expected credit loss 預期信貸虧損	-	-	-	54,140	131,627	17,634	12,139	-

36. 財務風險管理目標及政策(續)

信貸風險(續)

(i) 風險概要(續)

截至二零一八年十二月三十一日止年度，本集團的預期信貸虧損釐定如下：

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Credit risk (continued)

(ii) Risk management objectives and policies

The Group's policy is to deal only with creditworthy counterparties. Credit terms are granted to new customers after a creditworthiness assessment. When considered appropriate, customers may be requested to provide proof as to their financial position.

Customers who are not considered creditworthy are required to pay in advance or on delivery of goods. Payment records of customers are closely monitored. Overdue balances and significant trade receivables are highlighted. The directors will determine the appropriate recovery actions. It is not the Group's policy to request collateral from its customers.

The credit risk for liquid funds is considered negligible as the counterparties are reputable banks and securities brokers.

The credit policies have been followed by the Group since prior years and are considered to have been effective in limiting the Group's exposure to credit risk to a reasonable level.

36. 財務風險管理目標及政策(續)

信貸風險(續)

(ii) 風險管理目標及政策

本集團之政策為僅與信譽良好之對方進行交易。授予新客戶之信貸期乃經信譽評估後授出。倘認為適合，客戶可被要求提供財政狀況之證明。

被認為信譽不佳之客戶須預付款項或於交付時付款。客戶之付款記錄獲密切監視。逾期結餘及重大貿易應收款受重視。董事將釐定適當追收行動。本集團之政策不要求其客戶提供抵押品。

由於對方為信譽良好之銀行及證券經紀，故流動資金之信貸風險被認為極微。

信貸政策在過往數年度一直由本集團沿用，且被認為行之有效，將本集團承擔之信貸風險限制在合理水平。

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36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Credit risk (continued)

(iii) Concentration of credit risk

Included in trade receivables and contract assets were HK\$1,755,359,000 (2017: HK\$2,258,989,000) and HK\$4,790,110,000 (2017: HK\$1,535,212,000) due from the Group's five largest customers, which represented approximately 45% (2017: 31%) and 40% (2017: 64%) of total trade receivables from customers and contract assets at the end of the reporting period, respectively.

Included in trade receivables and contract assets were HK\$1,084,607,000 (2017: HK\$1,816,927,000) and HK\$1,218,724,000 (2017: HK\$865,448,000) due from Shandong Haihui New Energy Technology Ltd. (previously known as Shandong Macrolink New Energy Technology Ltd.), which represented approximately 28% (2017: 25%) and 10% (2017: 36%) of total trade receivables from customers and contract assets at the end of the reporting period, respectively.

36. 財務風險管理目標及政策(續)

信貸風險(續)

(iii) 風險管理目標及政策

貿易應收款項及合同資產包括1,755,359,000港元(二零一七年: 2,258,989,000港元)及4,790,110,000港元(二零一七年: 1,535,212,000港元)應收本集團五大客戶款項, 分別佔報告期末之應收客戶貿易款項總額及合同資產約45%(二零一七年: 31%)及40%(二零一七年: 64%)。

貿易應收款項及合同資產包括1,084,607,000港元(二零一七年: 1,816,927,000港元)及1,218,724,000港元(二零一七年: 865,448,000港元)應收山東海慧新能源科技有限公司(前稱山東華聯新能源科技有限公司)款項, 分別佔報告期末之應收客戶貿易款項總額及合同資產約28%(二零一七年: 25%)及10%(二零一七年: 36%)。

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36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Liquidity risk

Liquidity risk relates to the risk that the Group will not be able to meet its obligations associated with its financial liabilities. The Group is exposed to liquidity risk in respect of settlement of liabilities when they fall due and also in respect of its cash flow management. The Group's objective is to maintain an appropriate level of liquid assets and committed lines of funding to meet its liquidity requirements in the short and long term.

Analysed below is the remaining contractual maturity for the Group's financial liabilities as at the end of the reporting period. When the creditor has a choice of when the liability is settled, the liability is included on the basis of the earliest date on which the Group can be required to pay. Where the settlement of the liability is in instalments, each instalment is allocated to the earliest period in which the Group is committed to pay.

The contractual maturity analysis below is based on the contractual undiscounted payments as at the end of the reporting period:

2018

	On demand 於要求時 HK\$'000 千港元	Less than 1 year 少於1年 HK\$'000 千港元	1 to 5 years 1至5年 HK\$'000 千港元	Over 5 years 超過5年 HK\$'000 千港元	Total 合計 HK\$'000 千港元
Trade and bills payables	-	5,172,070	-	-	5,172,070
Other payables and accruals	-	889,612	-	-	889,612
Interest-bearing bank and other borrowings	-	203,610	499,010	115,926	818,546
Other non-current liabilities	9,440	-	-	-	9,440
	9,440	6,265,292	499,010	115,926	6,889,668

36. 財務風險管理目標及政策(續)

流動資金風險

流動資金風險乃與本集團未能履行金融負債相關責任之風險有關。本集團在清償到期負債以及在現金流量管理方面承擔流動資金風險。本集團之目標為維持適當之流動資產水平及承諾資金額度，以應付其短及長期之流動資金需要。

以下為就本集團於報告期末之非衍生金融負債之剩餘合同到期日。負債乃按本集團可被要求付款之最早日期計入，惟貸權人可選擇結清負債之日期。當負債以分期方式結清，則各分期乃分配至本集團承諾付款之最早期間。

以下合同到期分析乃根據截至報告期末之合同未貼現付款作出：

二零一八年

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36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Liquidity risk (continued)

2017

		On demand 於要求時 HK\$'000 千港元	Less than 1 year 少於1年 HK\$'000 千港元	1 to 5 years 1至5年 HK\$'000 千港元	Over 5 years 超過5年 HK\$'000 千港元	Total 合計 HK\$'000 千港元
Trade and bills payables	貿易及票據應付款項	-	1,737,876	-	-	1,737,876
Other payables and accruals	其他應付款項及應計費用	-	670,492	-	-	670,492
Interest-bearing bank and other borrowings	銀行及其他附息借款	-	610,226	519,031	166,643	1,295,900
Other non-current liabilities	其他非流動負債	20,049	-	-	-	20,049
		20,049	3,018,594	519,031	166,643	3,724,317

Capital management

The primary objectives of the Group's capital management are to safeguard the Group's ability to continue as a going concern and to maintain healthy capital ratios in order to support its business and maximise shareholders' value.

The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. To maintain or adjust the capital structure, the Group may adjust the dividend payment to shareholders, return capital to shareholders or issue new shares. The Group is not subject to any externally imposed capital requirements. No changes were made in the objectives, policies or processes for managing capital during the years ended 31 December 2018 and 2017.

36. 財務風險管理目標及政策(續)

流動資金風險(續)

二零一七年

資本管理

本集團之主要資本管理目標為確保本集團有能力持續經營，並維持穩健資本比率，以支持其業務及盡量提升股東價值。

本集團管理其資本架構並就經濟狀況變動及相關資產之風險特徵作出調整。為維持或調整資本架構，本集團可能調整支付予股東之股息金額、向股東退回資本或發行新股份。本集團不受任何外部施加之資本規定所限制。於截至二零一八年十二月三十一日及二零一七年十二月三十一日止年度，本集團資本管理目標、政策或程序概無變動。

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(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

36. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Capital management (continued)

The Group monitors capital using a gearing ratio, which is net debt divided by the capital plus net debt. Net debt includes interest-bearing bank and other borrowings, trade and bills payables, other payables and accruals and contract liabilities, less cash and cash equivalents. Capital includes equity attributable to owners of the parent. The gearing ratios as at the end of the reporting periods were as follows:

36. 財務風險管理目標及政策(續)

資本管理(續)

本集團利用資本負債比率(即債務淨額除以資本加債務淨額)監控資本。債務淨額包括銀行及其他付息借款、貿易及票據應付款項以及其他應付款項及應計費用及合同負債(扣除現金及現金等價物)。資本包括母公司擁有人應佔權益。於報告期末之資本負債比率如下:

		2018 二零一八年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元
Interest-bearing bank and other borrowings (note 26)	銀行及其他付息借款(附註26)	686,793	1,126,008
Trade and bills payables (note 23)	貿易及票據應付款項(附註23)	5,172,070	1,737,876
Other payables and accruals (note 24)	其他應付款項及應計費用(附註24)	3,959,017	7,073,562
Contract liabilities (note 25)	合同負債(附註25)	3,193,004	-
Less: Cash and cash equivalents (note 22)	減: 現金及現金等價物(附註22)	(359,049)	(2,496,760)
Net debt	債務淨額	12,651,835	7,440,686
Equity attributable to the owners of the parent	母公司擁有人應佔權益	13,170,790	8,107,266
Capital	資本	13,170,790	8,107,266
Capital and net debt	資本及債務淨額	25,822,625	15,547,952
Gearing ratio	資本負債比率	49.00%	47.86%

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37. STATEMENT OF FINANCIAL POSITION OF THE COMPANY

Information about the statement of financial position of the Company at the end of the reporting period is as follows:

37. 本公司財務狀況表

報告期末有關本公司財務狀況表的資料如下：

		2018 二零一八年 HK\$'000 千港元	2017 零一六年 HK\$'000 千港元
NON-CURRENT ASSETS	非流動資產		
Property, plant and equipment	物業、廠房及設備	1,615	423
Investments in subsidiaries	投資於附屬公司	6,473,988	6,473,988
Total non-current assets	非流動資產總額	6,475,603	6,474,411
CURRENT ASSETS	流動資產		
Inventories	存貨	1,281	1,278
Due from subsidiaries	應收附屬公司款項	2,147,814	419,315
Deposits and prepayments	按金及預付款項	3,841	9,280
Cash and cash equivalents	現金及現金等價物	4,669	7,658
Total current assets	流動資產總額	2,157,605	437,531
CURRENT LIABILITIES	流動負債		
Due to subsidiaries	應付附屬公司款項	152,195	160,094
Other payables and accruals	其他應付款項及應計費用	30,692	23,212
Tax payable	應繳稅項	2,300	2,300
Total current liabilities	流動負債總額	185,187	185,606
NET CURRENT ASSETS	流動資產淨額	1,972,418	251,925
TOTAL ASSETS LESS CURRENT LIABILITIES	資產總額減流動負債		
Net assets	資產淨值	8,448,021	6,726,336
EQUITY	權益		
Issued capital	已發行股本	105,364	105,364
Reserves (note)	儲備(附註)	8,342,657	6,620,972
Total equity	權益總額	8,448,021	6,726,336

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

37. STATEMENT OF FINANCIAL POSITION OF THE COMPANY (continued)

Note:

A summary of the Company's reserves is as follows:

		Share premium account 股份溢價賬 HK\$'000 千港元	Capital redemption reserve 資本贖回儲備 HK\$'000 千港元	Contributed surplus 實繳盈餘 HK\$'000 千港元	Share option reserve 購股權儲備 HK\$'000 千港元	Accumulated losses 累計虧損 HK\$'000 千港元	Total 總額 HK\$'000 千港元
At 1 January 2017	於二零一七年一月一日	11,244,621	7,684	33,132	58,177	(5,213,990)	6,129,624
Exercise of share options (note 28(a))	行使購股權 (附註28(a))	70,940	-	-	-	-	70,940
Share option expense	購股權開支	-	-	-	19,475	-	19,475
Transaction with owners	與擁有人之交易	70,940	-	-	19,475	-	90,415
Total comprehensive income for the year	本年度全面收益總額	-	-	-	-	400,933	400,933
At 31 December 2017	於二零一七年十二月三十一日	11,315,561	7,684	33,132	77,652	(4,813,057)	6,620,972
At 1 January 2018	於二零一八年一月一日	11,315,561	7,684	33,132	77,652	(4,813,057)	6,620,972
Share option expense	購股權開支	-	-	-	10,233	-	10,233
Transaction with owners	與擁有人之交易	-	-	-	10,233	-	10,233
Total comprehensive income for the year	本年度全面收益總額	-	-	-	-	1,711,452	1,711,452
At 31 December 2018	於二零一八年十二月三十一日	11,315,561	7,684	33,132	87,885	(3,101,605)	8,342,657

37. 本公司財務狀況表(續)

附註：

本公司儲備的概要如下：

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

38. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS

The following table presents the fair value of financial instruments measured at the end of the reporting period on a recurring basis, categorised into the three-level fair value hierarchy as defined in HKFRS 13 Fair Value Measurement. The level into which a fair value measurement is classified is determined with reference to the observability and significance of the inputs used in the valuation technique as follows:

- Level 1 valuations: Fair value measured using only Level 1 inputs i.e. unadjusted quoted prices in active markets for identical assets or liabilities at the measurement date.
- Level 2 valuations: Fair value measured using Level 2 inputs i.e. observable inputs which fail to meet Level 1, and not using significant unobservable inputs. Unobservable inputs are inputs for which market data are not available.
- Level 3 valuations: Fair value measured using significant unobservable inputs.

38. 金融工具之公平值及公平值架構

下表呈列於報告期末按經常性基準計量的金融工具的公平值，分類為香港財務報告準則第13號公平值計量所界定的三級公平值架構。公平值計量所歸類的層級乃經參考下列估值方法所用輸入值的可觀察性及重要性而釐定：

- 第一級估值：僅使用第一級輸入值（即相同資產或負債於計量日在活躍市場中的未經調整報價）計量公平值。
- 第二級估值：使用第二級輸入值（即未能符合第一級的可觀察輸入值）及不使用重大不可觀察輸入值計量公平值。不可觀察輸入值為市場數據不可用的輸入值。
- 第三級估值：使用重大不可觀察輸入值計量公平值。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

38. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (continued)

At 31 December 2018, the financial instruments of the Group carried at fair value were bills receivable and equity investments designated at fair value through other comprehensive income. The fair value hierarchies of financial instruments described above are as follows:

38. 金融工具之公平值及公平值架構 (續)

於二零一八年十二月三十一日，本集團按公平值列賬之金融資產為應收票據及指定為按公平值計入其他全面收益之股權投資。上述金融工具之公平值等級如下：

Fair value measurements as at 31 December 2018 categorised into
於二零一八年十二月三十一日之公平值計量之分類

	Carrying amount at 31 December 2018 於二零一八年十二月三十一日之賬面值 HK\$'000 千港元	Quoted prices		
		in active markets for identical assets (Level 1) 相同資產在活躍市場中的報價 (第一級) HK\$'000 千港元	Significant other observable inputs (Level 2) 重大其他可觀察輸入值 (第二級) HK\$'000 千港元	Significant unobservable inputs (Level 3) 重大不可觀察輸入值 (第三級) HK\$'000 千港元
Bills receivable 應收票據	141,350	-	141,350	-
Equity investments designated at fair value through other comprehensive income 指定為按公平值計入其他全面收益之股權投資	63,058	-	-	63,058

The fair values of unlisted equity investments designated at fair value through other comprehensive income have been originally estimated using a market-based valuation technique based on assumptions that are not supported by observable market prices or rates. However, since these investees were still under the construction phase without any operation since the Group has invested in, their fair values approximated to their costs as at 31 December 2018. These investees were purchased in 2017, and there was no movement of their fair values during 2018 except for exchange realignment.

指定為按公平值計入其他全面收益的非上市權益投資的公平值原先根據並非由可觀察市場價格或利率支持之假設，使用基於市場的估值技術估計。然而，由於該等被投資方自本集團作出投資以來仍在建設階段及並無營運，故其公平值與其於二零一八年十二月三十一日之成本相若。該等被投資方於二零一七年被收購，且除匯兌調整外，二零一八年其公平值並無任何變動。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

(For the year ended 31 December 2018 截至二零一八年十二月三十一日止年度)

38. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS *(continued)*

The fair values of bills receivable have been calculated by using present value model which incorporated various market observable inputs including interest rate curves. The fair values of bill receivables approximated to their carrying amounts as at 31 December 2018.

The fair values of other financial instruments carried at amortised cost, including cash and cash equivalents, restricted cash, trade receivables, financial assets included in prepayments, deposits and other receivables, trade and bills payables, financial liabilities included in other payables and accruals, and the current-portion of interest-bearing bank and other borrowings are not materially different from their carrying amounts as at 31 December 2018 and 2017, due to the short term maturities of these instruments.

The fair values of the non-current liabilities and the non-current portion of interest-bearing bank and other borrowings have been calculated by discounting the expected future cash flows using rates currently available for instruments with similar terms, credit risk and remaining maturities. They are not materially different from their carrying amounts as at 31 December 2018 and 2017.

39. APPROVAL OF THE FINANCIAL STATEMENTS

These consolidated financial statements were approved by the directors of the Company on 29 March 2019.

38. 金融工具之公平值及公平值架構 (續)

應收票據之公平值使用現值模型計算，該模型納入多項市場可觀察輸入值，包括利率曲線。應收票據之公平值與其於二零一八年十二月三十一日之賬面值相若。

按攤銷成本列賬之其他金融工具的公平值，包括現金及現金等價物、受限制現金、貿易應收款項、計入預付款項、按金及其他應收款項的金融資產、貿易應付款項及應付票據、計入其他應付款項及應計費用之金融負債及銀行及其他付息借款的即期部分，與其於二零一八年及二零一七年十二月三十一日的賬面值並無重大區別，主要由於此等工具的到期時間較短。

銀行及其他付息借款非即期負債及非即期部分之公平值，乃按預計未來現金流量，以年期、信貸風險及剩餘到期期限相近的工具的現行可用利率貼現計算，且與其於二零一八年及二零一七年十二月三十一日之賬面值並無重大區別。

39. 批准財務報表

該等財務報表已於二零一九年三月二十九日獲本公司董事批准。

FIVE YEAR FINANCIAL SUMMARY

五年財務概要

A summary of the results and of the assets and liabilities of the Group for the last five financial years, as extracted from the published financial statements is set out below.

下文載列本集團過去五個財政年度之業績、資產及負債概要，乃摘錄自己刊發之財務報表。

RESULTS

業績

		2014 二零一四年 HK\$'000 千港元	2015 二零一五年 HK\$'000 千港元	2016 二零一六年 HK\$'000 千港元	2017 二零一七年 HK\$'000 千港元	2018 二零一八年 HK\$'000 千港元
CONTINUING OPERATION	持續經營業務					
REVENUE	收入	9,615,028	2,814,668	4,483,130	6,147,385	21,251,772
PROFIT/(LOSS) BEFORE TAX	稅前溢利/(虧損)	4,186,692	(12,087,413)	658,395	446,124	7,570,496
Income tax expense	所得稅支出	(983,074)	(146,129)	(406,781)	(185,092)	(2,377,428)
PROFIT/(LOSS) FOR THE YEAR	本年度溢利/(虧損)	3,203,618	(12,233,542)	251,614	261,032	5,193,068
Profit/(loss) for the year attributable to the owners of the parent	母公司擁有人應佔 本年度溢利/(虧損)	3,203,696	(12,233,564)	251,620	261,099	5,193,017
Profit/(loss) for the year attributable to non-controlling interests	非控股權益應佔 本年度溢利/(虧損)	(78)	22	(6)	(67)	51

FIVE YEAR FINANCIAL SUMMARY

五年財務概要

ASSETS AND LIABILITIES

資產及負債

		2014	2015	2016	2017	2018
		二零一四年	二零一五年	二零一六年	二零一七年	二零一八年
	Notes	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000
	附註	千港元	千港元	千港元	千港元	千港元
Goodwill	商譽	7,915,318	-	-	-	-
Intangible assets	無形資產	14	1,181,777	16,597	12,685	35,467
Property, plant and equipment	物業、廠房及設備	13	766,781	342,707	606,111	581,302
Available-for-sale financial investments	可供出售金融投資	15	-	-	-	66,097
Equity investments designated at fair value through other comprehensive income	指定為按公平值計入其他全面收益之權益投資		-	-	-	-
Deposits paid for acquisition of items of property, plant and equipment	收購物業、廠房及設備項目之已付按金		32	30	28	-
Deferred tax assets	遞延稅項資產	26	76,404	-	-	-
Other non-current assets	其他非流動資產		4,072	251,130	139,563	89,575
Net current assets	流動資產淨值		12,014,399	8,189,561	7,572,872	8,361,856
Deferred tax liabilities	遞延稅項負債	26	(561,995)	(417,406)	(401,220)	(478,048)
Other non-current liabilities	其他非流動負債		(911,150)	(935,017)	(589,017)	(548,447)
Total equity	權益總額		20,485,638	7,447,602	7,341,022	8,107,802
						13,171,377



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