SDIC POWER HOLDINGS CO., LTD

(a joint stock company established under the laws of the People's Republic of China with limited liability)

This document comprises a registration document (the "**Registration Document**") for the purposes of Regulation (EU) 2017/1129 (the "**Prospectus Regulation**") relating to SDIC Power Holdings CO., LTD, a joint stock company established under the laws of the People's Republic of China (the "**PRC**") with limited liability (the "**Company**" and together with its subsidiaries, the "**Group**"), which has been approved as a registration document by the United Kingdom Financial Conduct Authority (the "**FCA**") as competent authority under the Prospectus Regulation in accordance with the prospectus regulation rules (the "**Prospectus Regulation Rules**") of the FCA made under section 73A of the Financial Services and Markets Act 2000 (the "**FSMA**"). The FCA only approves this Registration Document as meeting the standards of completeness, comprehensibility and consistency imposed by the Prospectus Regulation and such FCA approval should not be considered as an endorsement of the Company that is the subject of this Registration Document. This Registration Document will be made available to the public in accordance with the Prospectus Regulation Rules.

The Company accepts responsibility for the information contained in this Registration Document. To the best of the Company's knowledge, the information contained in this Registration Document is in accordance with the facts and contains no omission likely to affect its import.

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Certain terms used in this Registration Document are defined in "*Definitions and Glossary*".

This Registration Document should be read in its entirety and, in particular, see "*Risk Factors*" beginning on page 1.

The date of this Registration Document is 29 October 2019

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Risks related to the Group's business and industry

Hydropower business revenue is highly dependent on hydrological conditions. Any absence of acceptable climatic conditions for the Group's hydropower projects may have a material adverse effect on the output of such projects.

The production and operation of hydropower have a significant impact on the Group's profitability. As at 30 June 2019, the Group owned ten hydropower projects in operation, with a consolidated installed capacity of 16,763.5MW, representing 48.8% of the Group's total consolidated installed capacity. Revenue from the Group's hydropower generation business for 2016, 2017 and 2018 and the six months ended 30 June 2019 amounted to RMB17,925.6 million, RMB17,743.1 million, RMB19,660.9 million and RMB8,247.6 million, respectively, accounting for 61.2%, 56.1%, 47.9% and 42.1% of its total revenue during the same periods, respectively. Hydropower units operated by the Group are distributed in different river basins in Sichuan, Yunnan and Gansu provinces. The Group's hydropower projects are dependent upon hydrological conditions prevailing from time to time in the broad geographic regions in which the Group's existing and future hydropower projects are located. The hydropower projects under construction are mostly located in mountains where mud and rock flows may affect the operation of the plants during the rainy seasons. Hydropower is exposed to natural factors, and power generation and business performance are highly dependent on water supply.

Hydropower projects depend upon a year-round flow of water to generate electricity. The water flow of the rivers on which the Group's hydropower projects are situated may fluctuate considerably according to seasonal rainfall, which can be unpredictable. Excessive fluctuations in rainfall and droughts could affect the output of the Group's hydropower projects. The availability of sufficient water flow affects the output of the Group's hydropower projects, which, in turn, affects the Group's results of operations. Moreover, annual climatic fluctuations due to severe or abnormal weather conditions in a particular year may result in uneven results from year to year. Any absence of acceptable climatic conditions for the Group's hydropower projects may have a material adverse effect on the output of such projects and, in turn, the Group's business, financial condition and results of operations.

In selecting sites for the development of hydropower projects, the Group makes its decisions based on the meteorological and topographical data of the proposed area as well as the on-site exploration. Actual conditions may not conform to the historical measured data, or the assumptions made by the Group during its assessment may not be correct. Moreover, even if actual conditions are consistent with the Group's assessment, those conditions may be affected by variations in weather patterns which may change over time to the detriment of the Group's power projects. As a result, the electricity generated by the Group's hydropower projects may fall below its expectations, which could in turn have an adverse effect on the Group's business, financial condition and results of operations.

An increase in coal prices and a disruption in coal supply or transportation could materially and adversely affect the Group's coal-fired power business.

As at 30 June 2019, coal-fired installed capacity accounted for 45.8% of the Group's consolidated installed capacity. Changes in coal prices have a significant impact on the cost and profitability of coal-fired power enterprises. In 2016, 2017 and 2018 and the six months ended 30 June 2019, costs of coal represented 60.4%, 69.9%, 76.2% and 54.0%, respectively, of the cost of sales of the Group's coal-fired power business. As such, the Group's results of operations are sensitive to the fluctuation of coal prices. The Group negotiates coal prices applicable to its coal-fired power plants with coal suppliers, and the coal prices are subject to factors, such as market conditions, applicable VAT and the cost of transportation. The price of coal purchased for electricity generation is subject to market fluctuations and has been volatile. In 2016, 2017 and 2018 and the six months ended 30 June 2019, the average price of standard coal (7,000 kcal/kg) per tonne the Group purchased was RMB452, RMB638, RMB698 and RMB649, respectively. In 2018, the policy of removing suboptimal production capacity in the coal industry continued, which caused a further concentration of the coal industry and the enhanced bargaining power of coal suppliers. Imported coal is subject to greater policy restrictions and exchange rate fluctuations, which increased the coal procurement risk of the Group's coal-fired power plants located in the coastal areas in China.

In 2016, 2017 and 2018 and the six months ended 30 June 2019, the Group did not experience any material shut-downs or reduced electricity generation caused by inadequate coal supplies or transportation services, but in the event of national coal supply shortfalls, any change in the Group's principal coal distributors or suppliers, the late delivery by the Group's principal coal distributors or suppliers, or their inability to meet the Group's quantity or quality requirements, the Group's business operations may be adversely and materially affected. Delivery disruption could occur for a variety of reasons beyond the Group's control, including transportation bottlenecks, accidents and natural disasters. The Group cannot assure that it can avoid disruption in, or unavailability of, coal transportation services, which would have a material adverse effect on the Group's business, financial condition or results of operations.

The Group's wind power and solar power projects depend heavily on suitable meteorological conditions.

The quantity of electricity generated from a wind or solar power project will depend on the associated meteorological conditions, such as wind and solar conditions. Variability in wind and solar conditions can cause the Group's project revenues to vary significantly from period to period. The Group decides where to construct wind or new solar power projects, as well as the Group's electricity generation estimates, based on meteorological studies conducted on the project site and its region. For example, before the construction of a new wind project, the Group will measure the wind speed, prevailing direction and seasonal variations. Projections of wind resources will also rely upon assumptions about turbine placement, interference between turbines and the effects of vegetation, land use and terrain, which involve uncertainty and require the Group to exercise considerable judgement. Before the construction of a solar power project, the Group will measure the amount and intensity of sunlight under different weather conditions at different times. The Group may make inaccurate assumptions in analysing the wind, sunlight and other meteorological conditions and in projecting future conditions. Even if the historical wind or sunlight resources of a project are consistent with its long-term estimates, the unpredictable nature of wind or sunlight conditions often results in daily, monthly and yearly material deviations from the average wind or sunlight resources the Group may anticipate during a particular period. If the wind or solar resources at a project site are materially below the average levels the Group expects for a particular period, the Group's revenue from electricity sales from such project could be less than expected. Any of these factors could cause the Group's wind or solar power projects to generate less electricity than the Group expects and reduce the Group's revenue from electricity sales, which could have a material adverse effect on the Group's business, financial condition, results of operations and prospects.

Certain power plants of the Group are located in regions where there is excessive power supply, which may intensify competition for grid access and dispatch priority.

According to the China Electricity Council data, the power supply in the north-eastern and north-western regions of China exceeded power demand in 2018, and such excess is expected to continue in 2019. Some of the Group's coal-fired power plants are located in the north-west of China, especially in Gansu province, and thus may face greater competition for grid access. The Group has adopted several measures to maximise the usage of the power generated, including enhancing marketing strategy and market analysis to seek more customers who engage the Group to supply power directly, and instigating a power generation plan supported by market experiences. The Group cannot assure that these measures will effectively improve the Group's position in grid accessing, or at all.

The power industry in which the Group operates depends heavily on domestic economic conditions, and the industry may be materially affected by any severe or prolonged economic downturn.

The power industry is closely correlated with macroeconomic economic cycles. A downward economic cycle may directly cause a reduction in the demand for industrial electricity production and an increase in the intensity of competition among power companies. Since 2012, as a result of the unstable international economic environment and China's aggregate economic growth slowing down, various factors led to China's electricity consumption growth slowing on a year-on-year basis. According to Frost & Sullivan, the average utilisation hours of power generators in China experienced a decrease during 2013 to 2016, and then a stable recovery from 2016 to 2018. According to Frost & Sullivan, total power consumption in China increased from 5,342.3 TWh in 2013 to 6,844.9 TWh in 2018 at a CAGR of 5.1%.

At present, China's economic growth faces pressure. With unpredictability in relation to domestic and foreign economic and geopolitical situations, China's economic growth and restructuring are uncertain. China's annual GDP growth rate has been slowing in recent years and was 6.6% in 2018, the lowest since 1991. As China is undergoing economic restructuring, China may not be able to maintain a high rate of economic growth in the future. An economic slowdown in China could materially and adversely affect electricity markets in China, which could adversely affect the Group's business, financial condition and results of operations.

The Group may face limitations on the dispatch of electricity generated due to the delay in grid construction, grid congestion, or other grid constraints, which may affect the operation of the Group's projects and may have a material adverse effect on the sales of electricity generated from the Group's power generating projects, as well as the Group's business, financial condition and results of operations.

Power generation in PRC outpaces power grid construction. The transmission and dispatch of the output of the Group's power generation projects, particularly renewable energy projects, may be curtailed as a result of various grid constraints, such as grid congestion, or grid breakdown resulting in constraints on transmission capacity of the grid and restrictions on electricity dispatch during certain periods. Grid congestion may be caused by the increased supply of electricity due to rapid economic growth, resulting in periods when grids do not have sufficient capacity to transmit and dispatch the full output of their connected power projects. If grid congestion happens, the relevant grid could require a project to reduce the amount of power generated, which in turn would reduce the Group's expected revenue from that particular power project. The Group may not be able to receive compensation for reductions in generation due to a grid constraint. The Group relies on local grid companies in the PRC to construct and maintain the infrastructure and provide the electricity transmission and dispatch services necessary to connect the Group's power generating projects to their respective grids and to maintain that connection, and there can be no assurance that the grid companies will do so in a timely manner, or at all. Any reduction in dispatched output due to grid congestion or other constraints may have a material adverse effect on the sales of electricity generated from the Group's projects, as well as the Group's business, financial condition and results of operations.

Future changes in regulations or pricing policies may affect the Group's business, financial conditions and results of operations.

The Group is subject to governmental regulations in virtually all aspects of its operations, including the amount and timing of power generation, the setting of on-grid tariffs, and compliance with power grid control and dispatch directives.

For existing power projects in China, except as otherwise regulated by laws and regulations, the on-grid tariffs are currently subject to a review and approval process on a regular basis involving the relevant local government authorities, or the NDRC, as the case may be. For more details, see "*Regulation—PRC Laws and Regulations Relating to the Power Industry*". The Group has little influence on setting its tariff rates.

In March 2015, the Central Committee of the Communist Party of China ("**CPC Central Committee**") and the State Council issued a notice "Certain Opinions of the CPC Central Committee and the State Council on Further Implementation of System Reform in Electricity Industry (Zhong Fa [2015] No. 9)"《中共中央、国务院关于进一步深化电力体制改革的若干意见》(中发[2015]9号) (the "**Opinions**"). In order to implement the Opinions, the NDRC and NEA jointly published a series of government instructions stating that except for electricity for crucial social functions, the output and price for all electricity is fully marketised, and thus the power price is increasingly affected by demand and supply in the market, which may bring fluctuations to the power price. Furthermore, in light of marketisation reform of the power industry, the Group's planned output are also subject to change. Any of the above may affect the Group's business, financial condition and results of operations.

In recent years, the NDRC or the relevant local government authorities adjusted the on-grid tariffs of coal-fired, hydropower, wind and solar power from time to time. If they reduce the relevant on-grid tariff in the future, the Group's operating income and net profit may be adversely affected. The Group cannot assure that the sales price of electricity will not decline in the future. If there is any significant reduction in the on-grid tariff, it could have a material adverse effect on the Group's business, financial position or results of operations.

The Group was subject to certain administrative penalties in the past, where the Group was required by local development and reform commissions or price bureau to return the environmental protection premiums received in excess of the on-grid tariff and pay fines, with an aggregated amount of RMB5.7 million for 2016, 2017, and 2018 and the six months ended 30 June 2019, due to failure by its coal-fired power plants to constantly meet emission standards set for receiving environmental protection premiums.

The business, financial condition and results of operations of the Group will be affected by any material changes in the PRC laws and regulations relating to the power industry. The Group incurs costs in regulatory compliance. An increase in the cost of compliance could increase the Group's operating costs and expenses and may have a material and adverse effect on the Group's business, financial condition and results of operations.

The operations of the Group's business may be adversely affected by the failure of key equipment, power facility construction or power supply systems, and the failure to repair or maintain our equipment in a timely manner may result in a loss of revenue and an increase in maintenance costs.

The breakdown of power generating equipment, or failure of other key equipment or of a civil structure in one or more of the Group's power generating projects, could disrupt the generation of electricity and result in the Group's revenues being lower than expected. Furthermore, any material breakdown or failure of the Group's transmission systems could disrupt the transmission of electricity by a power generating project to the local power grid. In addition, The Group relies on suppliers of key equipment to provide part of the operational and maintenance services. According to the Group's equipment purchase agreements, the Group's suppliers generally cover inspection and maintenance services and component repair or replacement during the warranty period. The Group's in-house technical team for certain projects will continue to perform part of the operational and maintenance activities following the expiration of such terms. If the Group's external equipment suppliers or its in-house technical team fails to provide inspection, maintenance or repair works for key equipment and systems in a timely manner or at all, the Group's power generation and business operations could be interrupted or delayed, possibly without warning.

The Group faces increasing competition from existing and new power projects, some of which may have more resources than the Group, which could reduce the on-grid tariff, the dispatch volume and the Group's utilisation hours and adversely affect the Group's revenue and profitability.

In China, the Group primarily competes with the national, provincial, local and other power generation and investment companies for dispatch volume, fuel and labour required to operate the Group's power projects. The Group's revenue is very sensitive to changes in dispatch volume that impact the Group's utilisation hours. In the markets where the Group sells power, the Group competes with other power projects for dispatch and there can be no assurance that the dispatch centres will not give preferential dispatch treatment to other power projects. In addition, the Group may encounter competition from other power suppliers. The tariff is in the process of marketisation, and the intensified competition may lead to decreases in the on-grid tariff. Other power suppliers may build new and more effective power projects in the areas where the Group operates. Further, other renewable energy technologies, such as nuclear power, geothermal power and biomass power, may become more competitive or attractive in the future. Competition for dispatch priority and volume from such producers may intensify if the technology used to generate electricity from these other clean and renewable energy sources becomes more sophisticated and cost-effective. If the Group is unable to maintain and increase its competitiveness in the future, the Group's market share, revenue and profitability may decrease, which would have a material adverse effect on the Group's business, financial condition and results of operations.

Furthermore, the Group competes with competitors for the acquisition of power projects and capital required in order to develop new power projects. Some of the Group's competitors have been operating for a longer period than has the Group, and have access to more financial resources, stronger support from their groups or affiliated companies and/or better government relationships than the Group. The ability of the Group's competitors to access resources that it does not have access to, including labour and capital, may prevent the Group from acquiring additional power projects in strategic locations or from increasing the Group's generating capacity. Failure to secure new greenfield or brownfield projects, to acquire additional power projects or other resources necessary to compete could have a material adverse effect on the Group's business, financial condition and results of operations.

The completion of the Group's projects is subject to uncertainties beyond the Group's control, which may cause the Group's projects becoming incapable of operating as planned or at all.

Given the Group's expansion and development, together with the highly regulated environment and capital extensive nature of its business, the Group may experience delays in the completion of the Group's power projects and the total construction costs of these power projects may exceed the Group's initial budget. The Group may suffer construction delays or construction cost increases as a result of a variety of factors, including:

- failure to secure interconnection to transmission lines;
- failure to receive adequate bank borrowings on favourable terms, or at all;
- failure to secure required regulatory permits or approvals on time;
- failure to receive critical components and equipment from third parties on schedule and according to design specifications;
- failure to receive quality and timely performance of third-party services such as third-party contractors, suppliers and civil engineering firms for construction work;
- inclement weather conditions;
- adverse environmental and geological conditions; and
- force majeure or other events beyond the Group's control.

Any of these factors could give rise to delays or additional costs to the Group's projects, which may prevent the Group from completing construction of a project, or operating such project profitably, and impair the Group's business, financial condition and results of operations.

The Group's growth strategy depends in part on the Group's ability to manage its future development effectively.

The Group's growth strategy is dependent in part on its ability to manage future development, such as its ability to successfully expand business, to hire, train and retain new personnel, to establish and maintain adequate financial control and prudence relating to the funding of such projects, and to manage a growing, and larger, operation and portfolio. The Group cannot assure that it will be able to: (i) expand its project portfolio through greenfield development, or in a timely manner; (ii) allocate adequate human resources; (iii) identify, hire and retain qualified personnel; (iv) maintain amicable relationships with its major customers; or (v) manage its expanded projects efficiently. If the Group fails to effectively manage the future development, the results of operations, financial condition and business prospects could be materially and adversely affected.

The existing and future businesses or projects the Group develops or invests in may not be profitable and may subject the Group to other expenses, losses or liabilities.

The businesses that the Group develops or invests now and in the future may not be as profitable as expected, or at all, especially considering the pressure faced by China's economic growth, the uncertainties associated with the reforms of the PRC power industry and the increasing competition in renewable energy globally. The projects the Group is currently developing, such as the Lianghekou Hydropower Project and the Yangfanggou Hydropower Project, are expected to bring sound investment return to the Group in the future. However, in constructing large-scale hydropower projects, the Group faces uncertainties such as complicated hydrological and geological conditions, slow immigration progress or increased relocation costs and a long capital recovery period. Unexpected risks may also result from changes in regulatory policies, human resources, protests or litigation brought by environment protection organisations and natural disasters during the construction of the Group's projects. In addition, situations such as unexpected delays in construction, cost overruns and unstable operation may occur during implementation of the projects. Each of the factors may become a challenge to a project's profitability and may cause the investment profits to deviate from the expected, which may adversely affect the Group's business, financial condition and results of operations.

Investments that the Group carries out may also cause the Group to incur liabilities, or result in the impairment of goodwill or other intangible assets, or incur other related expenses. The due diligence work the Group conducts in connection with an investment may not be sufficient to discover unknown liabilities or defects, and any contractual guarantees or indemnities that the Group receives from the sellers of the companies the Group has invested in may not be sufficient to protect the Group from, or compensate the Group for, actual liabilities or defects, and its forecast of potential demand may not meet the actual demand at such locations. Any material liability associated with an investment could adversely affect the Group's reputation and reduce the benefits of the investment. In addition, if any one of the Group's observations or assumptions proves to be inaccurate, the Group's estimated return on investment may not be accurate or may not be materialised at all.

Changes in technology and government policies in the wind-power and solar power industry could render the Group's existing wind and solar power projects and technologies uncompetitive or obsolete.

In the Notice on Wind Power Projects Construction and Management for 2018 issued by the NEA, it is required that the on-grid tariffs for new onshore and offshore wind power projects should be determined by bidding from 2019. As the construction costs of wind power and solar power projects become lower, in May 2019, the NDRC issued the Circular on Improving the Policy of On-grid Tariff for Wind Power (《国家发改委关于完善风电上网电价政策的通知》), which states that on-grid tariffs of centralised onshore wind power projects and all offshore wind power projects that are newly approved are determined through competition and shall not be higher than government guided prices of wind power in their resource areas. This may lead to more intensified competition and may adversely affect the Group's wind power and solar power business.

As at 30 June 2019, the Group's wind power and solar power projects in operation accounted for 5.4% of consolidated installed capacity. The development of the wind and solar power business will bring certain risks to the Group due to the differences between different power generation businesses in terms of technological process and power generation technology. For solar power projects, the Group relies on crystalline silicon; for wind power projects, the Group relies on wind turbines. These technologies may be subject to continual evolution and change. The Group cannot assure that it will be able to keep pace with technological changes in a timely manner or at a reasonable cost, which could have a material adverse effect on the Group's business, financial condition, results of operations and prospects.

The Group's overseas operations and its plans for further overseas expansion are subject to factors such as situations within and practices of the power industry, legal system, political situation and economic development in overseas markets in which the Group operates.

The Group actively explored overseas power markets and completed the equity acquisition of UK onshore and offshore wind-power project companies and an Indonesian coal-fired power project company. However, overseas project operations will place higher requirements on the production, operational and management abilities of the Group.

The Group's overseas operations may encounter situations and practices that are specific to the local power industry. For example, in the UK, the wholesale electricity market is fully liberalised. Therefore, power generation companies face greater competition in the UK than in China in electricity transmission, pricing and other aspects. In addition, in the UK market, without an executed offtake agreement, power generation companies are exposed to the fluctuations of electricity price and demand, which may bring uncertainties to the business and financial prospects of the Group's projects. Moreover, the wholesale market electricity price in the UK may become more volatile due to the increasing share of renewable energies in its power market and the constantly changing fuel and carbon prices, which may bring adverse effects to the Group's business, financial condition and results of operations.

Besides, the economic development status, economic policy environment, political situation, exchange rate fluctuations and other factors in the region where the project is located will have a direct impact on the operations and performance of the overseas project, thus exposing the Group to certain overseas operational risks. These international operations are subject to special risks that can have a material adverse effect on the Group's results of operations. These risks include but are not limited to:

- unsettled political conditions, war, civil unrest and hostilities in countries and regions in which the Group operates or seeks to operate;
- undeveloped legal systems;
- political and economic instability in foreign markets;
- natural disasters;
- fluctuations and changes in currency exchange rates;
- obligations and limitations imposed by local laws and regulations, such as for the purpose of environmental protection;
- PRC regulations and approval processes relating to overseas investments; and
- governmental actions such as expropriation of assets, general legislative and regulatory environment changes, exchange controls, cancellation of contract rights, and changes in global trade policies such as sanctions, trade restrictions and embargoes imposed by the United States and other countries.

To date, instability in the overseas political and economic environment has not had a material adverse effect on the Group's business, financial condition, results of operation and prospects. However, the Group cannot predict the effect that current conditions affecting various foreign economies or future changes in economic or political conditions abroad could have on the economics of the Group's power projects overseas. Any of the factors above may have a material adverse effect on the Group's international operations and expansion plans and, consequently, the Group's business, financial condition and results of operations.

Natural disasters or other catastrophic events may cause damage or disruption to the Group's operations.

The Group's power generating projects are subject to interruption by natural disasters and other events beyond its control, including, but not limited to, earthquakes, typhoons, storms and floods, as well as disasters caused by human actions and other deliberate or inadvertent actions which may affect the operation of the Group's power generating projects. Such events could make it difficult or impossible for the Group to deliver services. A number of the Group's generation and other critical business operations are located near major seismic faults such as Sichuan province. Catastrophic events such as earthquakes, floods or other similar occurrences could interrupt the Group's operations; cause unplanned outages or reduce generating output; damage the Group's assets; and cause personal injury or death. As a result, the Group could incur costs to purchase replacement power, to repair assets and restore service, and to compensate third parties. Because significant recovery time could be required to resume operations, the Group's financial condition and operating results could be materially adversely affected.

The Group may not have adequate insurance to cover hazards or accidents that are customary to the power industry.

The operation of the Group's power generating projects may be interrupted upon the occurrence of, including but not limited to, any of the following events:

- supply interruptions;
- the breakdown or failure of equipment or processes;
- difficulty or inability to find suitable replacement parts for equipment;
- unplanned outages or disruption in the transmission of electricity generated due to system failures;
- permit and other regulatory issues, licence revocation and changes in legal requirements;
- unforeseen engineering and environmental problems; or
- unanticipated cost overruns.

The Group cannot assure that it will be able to adequately control the impact of these events. The Group has entered into insurance policies to cover risks associated with its business such as property insurance, machinery and equipment damage insurance, public liability insurance and employer liability insurance. While the Group believes this insurance coverage is commensurate with its business structure and risk profile, the Group cannot assure that its current insurance policies will insure it fully against all risks and losses that may arise. In addition, the Group's insurers review the insurance policies annually, and the Group cannot assure that it will be able to renew these policies on similar, or otherwise acceptable, terms, if at all. If the Group were to incur a serious uninsured loss, or a loss that significantly exceeded the limits of its insurance policies, its business, financial condition and results of operations could be materially and adversely affected.

The Group's power generation facilities may cause accidents or significant harm to human health, which may have serious consequences.

Power generation operations involve significant risks and occupational hazards that are inherent in such activities and may not be completely eliminated through the implementation of preventive measures. Factors such as insufficient attention to safety or maintenance and working conditions associated with production could result in damage to human health or accidents. The main types of occupational hazards including dust, noise, explosions, radiations, high-temperature and high-pressure steam and fires. For example, in 2016 one worker of the external contractor of the Group died at work when cleaning the coal feeder. Whilst the accident was primarily due to the worker's own non-compliance with the relevant operation rules, the Group was required to strengthen the management of its operations to prevent similar accidents.

The Group has formulated a complicated occupation health management system to enhance operational safety. The Group periodically organises training for its employees to improve their self-protection and safeguarding abilities. In addition, the Group annually prepares occupational health examination for its employees and engages external professional institutions to conduct occupational hazard inspections and reviews so as to avoid or limit occupational hazards. However, as some occupational hazards are inherent, there can be no assurance that the health protection mechanism maintained by the Group will provide adequate protection in certain circumstances.

The Group relies on the effective functioning of information technology systems and any information technology system limitations or failures could adversely affect its business, financial condition, results of operations and prospects.

The Group's business depends on the integrity and performance of the business, accounting and other data processing systems at the holding company and at its subsidiaries. If the Group's systems may not be able to effectively address the issues arising from an increased business or may otherwise fail to perform, the Group could experience unanticipated disruptions in business, slower response times and limitations on its ability to monitor and manage data and risk exposures, control financial and operation conditions, and keep accurate records. These consequences could result in operating outages, poor operating performance, financial losses, and intervention of regulatory authorities. Although the Group's systems have not experienced major systems failures and delays in the past, there is no assurance that the Group's systems would not experience future systems failures and delays, or the measures taken by the Group to reduce the risk of system disruptions are adequate. If internet traffic and communication volumes increase unexpectedly or other unanticipated events occur, the Group may need to expand and upgrade the Group's technology, systems and network infrastructure. There is no assurance that the Group will be able to accurately project the rate, timing or cost of any increases, or expand and upgrade the Group's systems and infrastructure to accommodate any increases in a timely manner.

The interests of the Group and of minority shareholders may not be aligned with those of SDIC

As at the Latest Practicable Date, SDIC held 49.18% of the Company's Shares. Under the Company's Articles of Association and pursuant to the relevant rules of the Shanghai Stock Exchange, shareholders with an equity interest of 3% or above in the Company have the ability to nominate directors. In addition, shareholders with an equity interest of 1% or above in the Company have the ability to nominate independent directors. Four of the Company's nine current Directors were nominated by SDIC. Subject to the Company's Articles of Association and applicable laws and regulations, SDIC may, by voting its shareholding at general meetings of shareholders, have the ability to influence the Company's major policy decisions, including, among other items, the appointment of executive officers, business strategies and policies, the timing and amount of dividend distributions, material property transactions, major overseas investments, mergers and acquisitions, issuances of securities and adjustments to the Group's capital structure, amendments to the Company's Articles of Association and other actions that require the approval of the Board and shareholders. It is possible that differences in opinion may arise from time to time between SDIC and other shareholders and the interests of SDIC may be inconsistent with the interests of other shareholders. Decisions taken by the shareholders through a voting mechanism may not fully satisfy the interests of all shareholders. The Company cannot guarantee that SDIC will influence the Company to pursue actions that are in the best interests of other shareholders. In addition, SDIC is not prohibited from selling all or a portion of the shares it holds in the Group to a third party and may do so without approval of the other shareholders.

Risks related to the Group's legal and regulatory aspects

The Group's business and operations are highly regulated by and subject to permits by relevant regulatory authorities and the permits obtained may be further adjusted, suspended, withdrawn or revoked by the relevant government authority.

The development, construction and operation of the Group's power generating projects are highly regulated and subject to strict PRC laws and regulations administered by relevant PRC government authorities, such as the SASAC, NDRC, NEA, MNR and the Ministry of Ecology and Environment of the PRC, as well as their provincial and local counterparts. Government regulations address virtually all aspects of the Group's operations, including, amongst others, the following:

- planning and construction of new power projects;
- the granting of approval on construction land to the Group's projects;
- the granting of permits relating to the Group's operations;
- the power grid voltage qualification rate and power supply reliability;
- the setting of on-grid tariffs charged by power suppliers and end-user tariffs paid by customers;
- environmental protection and safety standards; and
- taxes, in particular, enterprise income tax and VAT.

In particular, before the Group constructs and operates its power generating projects, the Group must first obtain operational and construction permits from various authorities, including but not limited to zoning and land use right approvals. Procedures for granting such permits and approvals vary by region to region, and certain projects may not receive their operational or construction permits in a timely manner for a variety of reasons. Third parties may challenge a decision to grant the Group operational and construction permits in some provinces after local authorities have granted the Group such permits. After receiving the permits, the Group must comply with laws and regulations, as well as the conditions contained in the operational and construction permits. Failure to achieve the above may result in fines, sanctions, and/or the suspension, revocation or non-renewal of approvals, licences or permits. However, government authorities may adjust, suspend, withdraw or revoke the permits they have granted to the Group due to various reasons such as change of land use plan. Any adjustment, suspension, withdrawal or revocation of the permits the Group obtained may cause delay to the construction of the projects. These factors could have an adverse effect on the Group's business, financial condition and results of operations.

Further, if the Group intends to develop and expand its business through the development of new power projects or the acquisitions of power projects and related operating companies and businesses from third parties in or outside the PRC, such development and acquisitions may be subject to various governmental and regulatory approvals, consents, reports and filings. Under the PRC laws and regulations and governmental policies (which may change from time to time), acquisitions of PRC or offshore power projects and related operating companies and businesses by any member of the Group may be subject to approvals of and/or registrations with various PRC governmental and regulatory authorities, including but not limited to SASAC, CSRC, NDRC, MOFCOM and SAFE or their local counterparts.

It is significant for the Group to operate in compliance with regulatory requirements. A breach of laws or regulations to which the Group is subject may result in serious consequences, including, but not limited to, the imposition of fines, penalties or suspension or revocation of permits or licences. Complying with the extensive rules and requirements may require the Group to incur significant compliance costs, which could increase the Group's operating and maintenance costs and expenses and materially and adversely affect the Group's business and results of operations.

The Group does not possess the land use right certificates or building ownership certificates for certain land and buildings owned by the Group.

Part of the land and buildings of the Company's major subsidiaries in China have yet to obtain the ownership certificates, which are still in the processing procedures. For example, as at 30 June 2019, the major subsidiaries had not obtained the land use right certificates for their Lianghekou and Yangfanggou hydropower projects which were under construction:

- Lianghekou Hydropower Project has an expected capacity of 3,000.0 MW and is planned to commence commercial operation in phases between 2021 to 2023. The application processes of the construction land approval and the land use right certificates have been delayed because 648,503 sq.m. of the land was subsequently classified by the local department of land and resources in 2017 as permanent farmland that requires compensation after MLR had preapproved the land use and zoning plan in 2013. The project is in the process of obtaining the construction land approval from MNR, which is a prerequisite for obtaining land use right certificates.
- Yangfanggou Hydropower Project has an expected capacity of 1,500.0 MW and is planned to commence commercial operation in phases between 2021 and 2022. This project has obtained the construction land approval and is in the process of obtaining land use right certificates.

As at 30 June 2019, the major subsidiaries had not obtained land use right or building ownership certificates for 12 of its operating power generating projects. They had not obtained these certificates primarily due to legacy reasons, and they are actively coordinating with the relevant government authorities to reach resolutions. According to Frost & Sullivan, in China it is not uncommon for power projects to commence construction while the land use right certificates are being applied. Such application could take ten years or even longer to complete, depending on the competent authorities' review and approval progress.

If the certificates mentioned above cannot be obtained on time, or at all, the major subsidiaries' ability to transfer or dispose of such land or buildings or to use such land or buildings to provide security may be limited. It may also adversely affect such major subsidiaries' ability to obtain relevant permits or approvals, the absence of which may result in adverse consequences, including, but not limited to, the imposition of fines, penalties or suspension of operations. Any of the above may adversely affect the Group's business, financial condition and prospects. As advised by the Group's PRC legal advisor, the Group believes that the lack of land use right and building ownership certificates will not have a material adverse effect on its financial position or results of operations, due to the following: (i) in 2016, 2017 and 2018 and the six months ended 30 June 2019, the Group did not experience any business disruption nor were any administrative penalties imposed on the group due to the lack of land use right and/or building ownership certificates, (ii) regarding certain parcels of land, the Group has obtained construction land approval from competent authorities, and (iii) regarding certain parcels of land and buildings, the Group has obtained confirmation from competent authorities that it was expected that the procedure to obtain such certificates would not face any material uncertainty or obstacle after completing the prerequisite procedures.

The Group's operations are subject to extensive safety standards and regular inspections and examinations by relevant regulatory authorities.

The stringent national requirements on production safety may require the Group to maintain significant input in production safety management. Some of the Group's projects under construction are located in the mountainous regions with harsh natural conditions, and complex terrain and geology. The construction of these projects may involve a large number of construction personnel and may take extensive periods of time. If a major safety accident occurs in the construction or production process, it will have a negative effect on the production and operation of the Group.

In addition, the Group is subject to examination, investigation and audit by the PRC regulatory authorities. If, as a result of any such audit, material irregularities or other instances of non-compliance were found to have been committed by the Group, the Group may be subject to fines and other administrative penalties, which may adversely affect the Group's reputation, as well as the Group's business, financial condition and results of operations.

The Group is a party to certain legal proceedings and may be involved in legal and other proceedings arising out of its operations from time to time and may face significant liabilities as a result.

The Group may be involved in disputes from time to time arising from the ordinary course of its business with various parties with respect to power generation, including government authorities, contractors, suppliers and partners and other social entities. These disputes may lead to legal or other proceedings and may result in substantial costs and diversion of resources and management's attention and may have a material and adverse effect on its reputation and the Group's business and results of operations.

The Group is involved in a number of ongoing litigation and arbitration matters. For example, the China Biodiversity Conservation and Green Development Foundation filed an environmental tort lawsuit against one of the Group's subsidiaries, Yalong River Hydropower, in 2015, claiming that the planned Yagen I Hydropower Project and Yagen II Hydropower Project may have adverse effects on a type of endangered wild plant and attempting to prevent the construction of the project until effective measures to protect the endangered wild plants are adopted. As at the Latest Practicable Date, the case was pending trial at first instance. The Group cannot guarantee that it will successfully defend all of these legal proceedings. If found liable on such claims, the Group could face significant monetary damages, injunctions and/or a negative impact on its reputation.

There can be no assurance that the Group will not be involved in legal or administrative proceedings in the future that may result in outcomes which may have a material adverse effect on the Group's business, financial condition and results of operations or have a negative impact on the Group's reputation or brand. Further, the Group may have disagreements with regulatory bodies in the course of its operations, which may subject the Group to administrative proceedings and unfavourable decrees that result in pecuniary liabilities and cause delays to the Group's ordinary course of business.

If the PRC government adopts new and stricter environmental laws, promotes more favourable policies for renewable power or policies to reduce excessive capacity of coal-fired power, and additional capital expenditure is required to comply with such laws, the operation of the Group's coal-fired power business may be adversely affected, and the Group may be required to make additional investments in order to comply with these environmental laws.

Coal-fired power projects constitute a large proportion of the Company's power generating assets. In the process of production, coal-fired power enterprises need to meet the standards set by the central and local PRC governments in discharging pollutants such as wastewater, waste gas and coal ash. As laws, regulations and policies on environmental protection, including the Environmental Protection Law of the People's Republic of China (《中华人民共和国环境保护法》), Law on the Prevention and Control of Atmospheric Pollution of the People's Republic of China (《中华人民共和国大气污染防治法》), Law on the Prevention of Water Pollution of the People's Republic of China (《中华人民共和国水污染防治法》), Environmental Impact Assessment Law of the People's Republic of China《中华人民共和国环境影响评价法》), Integrated Scheme of Reform of Eco-civilisation System (《生态文明体制改革总体方案》), Action Plan for Upgrading and Renovation of Coal and Electricity Energy Conservation and Emission (Year 2014-2020)《煤电节能减排升级与改造行动计划（2014-2020年）, and Work Programme for Strengthening Air Pollution Prevention and Control in Energy Industry (《能源行业加强大气污染防治工作方案》), are introduced and implemented step by step, the power industry faces all around and stringent environmental protection standards. At the same time, the public awareness of environmental protection awakens, attention to the weather and air quality are increasingly high, the Group also faces increasing reputational risk relating to environmental protection.

Further implementation of environmental protection policies and improvements in public awareness of environmental protection may cause an increase in the Group's cost of environmental protection in the future, which may have a negative impact on the Group's business performance and financial situation. In addition, if the government promotes policies more favourable to renewable power and reduces excess capacity in coal-fired power in the future, the Group's coal-fired power plants may need to reduce power generation capacity or even be shut down, which will have a material adverse impact on the Group's business performance and financial situation.

The Group may incur additional costs if the Group becomes subject to additional environmental compliance requirements in connection with its hydropower business.

The Group is required to comply with PRC national and local regulations relating to environmental protection for the construction and operation of its hydropower plants. To the extent the Group's hydropower plants may have been in compliance with then PRC environmental protection laws and regulations at the time they were constructed, there can be no guarantee that the PRC government will not require the retroactive application of current laws and regulations to them. Compliance with environmental regulations can result in significant costs, and non-compliance with these regulations may adversely affect the Group's enterprise image, and potentially lead to monetary damage and fines, as well as suspension of the Group's business activities. Furthermore, if more stringent regulations are adopted in the future, the costs of regulatory compliance could increase, and failure to comply with such regulations may lead to fines and suspension of the Group's operations, and the Group's reputation, business, financial condition and results of operations may be adversely affected as a result.

Future legislation and regulation on carbon emissions in the PRC may adversely affect the Group's coal-fired business.

Emissions trading schemes set a limit on the aggregate amount of carbon dioxide that can be emitted in a country, as well as a cap on each individual company's carbon emissions. Companies whose emissions exceed their individual cap may need to purchase carbon permits from companies with lower emissions. As a result, under emissions trading schemes, power companies that utilise high-emission fuels such as coal or oil may be less competitive than renewable or clean energy companies.

The PRC government has recently approved carbon emissions trade pilot programmes in seven areas in the PRC, in line with its efforts to substantially reduce emissions per unit of economic output by 2020. The pilot districts of Shenzhen, Beijing, Shanghai, Tianjin, Guangdong province, Hubei province and Chongqing have started the operation of carbon emissions exchange. In 2017, the NDRC implemented the "National Carbon Emission Trading Market Construction Plan (Power Generation Industry)" (《全国碳排放权交易市场建设方案（发电行业）》) and set up a national carbon emission trading platform. The Group's Beijiang Coal-fired Power Project has participated in a pilot programme for trading carbon emission in a small scale.

As at 30 June 2019, 45.8% of the Group's consolidated installed capacity comprised coal-fired projects. Due to strong environmental performance of the Group's coal-fired power generating units, the Group has comparatively low carbon emissions, and thus the Group is not required to purchase carbon permits in the market. However, in the future, compliance with these cap and carbon emissions trading schemes may result in significant increases in costs due to a need to purchase carbon credits or make additional technological investments to reduce the Group's emissions, and could have an adverse effect on the Group's business, financial condition, results of operations and prospects.

Risks related to the Group's financial aspects

The Group operates in a capital-intensive business, and failure to obtain capital on terms acceptable to the Group may increase its financing costs and cause delays in its expansion plans.

The power generation business that the Group engages in is capital-intensive, characterised by large investment and long construction periods in the process of power supply construction. At the same time, with the continual expansion of the Group's business and investment scale, and its new and existing projects becoming larger in scale, the demand for funds has also increased correspondingly. As at 31 December 2016, 2017 and 2018 and 30 June 2019, the Group's gearing ratio (total debt to equity) was 229.1%, 218.5%, 195.4% and 200.4%, respectively.

The Group currently has several projects under construction or proposed, which require significant capital investment and accordingly may put pressure on the Group's working capital. The uncertainty of future interest rate levels and national credit policies will affect the amounts of the Group's borrowing and interest expenses to a certain degree, which may adversely affect the Group's results of operations.

In order to continuously expand the scale of production and operation, the Group is expected to continue to maintain large capital expenditures in various business segments in the future. The Group's capital expenditures, comprising the purchases of property, plant and equipment and intangibles, was RMB17,309.3 million, RMB11,654.7 million, RMB10,244.7 million and 4,722.4 million in 2016, 2017 and 2018 and the six months ended 30 June 2019, respectively. Greater capital expenditures may cause the Group's financing scale to increase and the gearing ratio to rise, therefore having an adverse impact on the Group's future operations and debt service.

The Group's ability to arrange financing and the financing expenses, are dependent on numerous factors, including, but not limited to:

- general economic and capital market conditions;
- credit availability from banks or other lenders;
- restrictive covenants or undertakings in existing financing arrangements; and
- the performance of the Group's power projects.

No assurance can be given that in the longer term the Group will always be able to secure financing from reliable sources on commercially reasonably terms to fund its new projects or acquisitions, or at all. If the Group fails to obtain such adequate financing in the longer term, its ability to expand its business may be hindered and the prospects of its future operations may be materially and adversely affected.

The Group's borrowing levels, interest payment obligations and net current liabilities could limit the funds available for various business purposes.

Due to the growth of the Group's business in the past several years, it relied on bank and related party loans and bond issues to fund a substantial portion of its capital requirements, and expects to continue to do so in the foreseeable future. The Group's indebtedness was RMB129,927.5 million, RMB132,658.2 million, RMB137,164.5 million and RMB139,167.8 million as at 31 December 2016, 2017 and 2018 and 30 June 2019, respectively.

As at 31 December 2016, 2017 and 2018 and 30 June 2019, the Group's net current liabilities amounted to RMB26,185.7 million, RMB21,773.2 million, RMB17,791.9 million and RMB12,043.8 million, respectively. The Group may continue to have net current liabilities in the near future. The Group's leverage and high net current liabilities could constrain its operational flexibility and may have adverse consequences, which include: (i) requiring the Group to use a substantial portion of its cash flows from operations to service its debt, thereby reducing the cash flows available for working capital, capital expenditures or other general corporate purposes; (ii) increasing the Group's exposure to interest rate fluctuations; and (iii) limiting the Group's ability to obtain, and increasing the cost of, additional financing to fund future working capital, capital expenditures or general corporate purposes.

The Group is subject to risks associated with changes in the preferential tax treatment applicable to some of its subsidiaries.

The Group is subject to various PRC taxes, including the current statutory PRC enterprise income tax rate of 25.0%, as determined in accordance with the relevant PRC tax rules and regulations.

However, PRC tax laws and regulations provide certain preferential tax treatments applicable to different enterprises, industries and locations. Some of the Company's subsidiaries are currently taxed at preferential rates due to the nature of their business activities and/or the location of their operations. For example, a number of major subsidiaries enjoy a preferential income tax of 15.0% due to their locations in western China as supported by the "Go West" policy in China. Moreover, certain hydropower, wind power and solar power projects enjoy a three-year period of full EIT exemption commencing from the first year with operating revenue, followed by a three-year period of half EIT reduction. In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the Group's effective tax rate was 11.9%, 12.7%, 14.0%, 16.6% and 15.4%, respectively. In addition, certain subsidiaries engaged in wind and solar power generation are entitled to a 50.0% rebate of the VAT levied on their electricity sales. Any change or elimination of such preferential tax treatments may materially and adversely affect the Group's business, financial condition and results of operations.

Fluctuations in exchange rates could have an adverse effect on the Group's results of operations.

A substantial portion of the Group's revenue and cost of sales is denominated in Renminbi. However, as the Group conducts part of its businesses overseas, and the Group has made, and expects to continue to make, equity and other investments in overseas projects, its foreign exchange-denominated assets and liabilities, mainly in US Dollars and GBP, are expected to increase as a result. The Group is therefore subject to risks associated with foreign exchange fluctuations.

The value of the Renminbi against US Dollars, GBP and other currencies may fluctuate and is affected by, among other things, changes in China's political and economic conditions. The conversion of Renminbi into foreign currencies is based on rates set by the PBOC. The PRC government has been changing its foreign exchange polices and may adopt further reforms of its exchange rate system, including making Renminbi freely convertible. These changes in policy have resulted in fluctuations of Renminbi against US Dollars. There can be no assurance that such exchange rate will remain stable against US Dollars, GBP or other foreign currencies in the market. While international reaction to the Renminbi revaluation has generally been positive, there remains significant international pressure on the PRC government to adopt an even more flexible currency policy, which could result in further and more significant depreciation of Renminbi against the US Dollars, GBP or other foreign currencies. Further depreciation of Renminbi against these currencies may lead to an increase in the costs of the Group's overseas operations. Fluctuations in exchange rates may adversely affect the value, translated or converted into US Dollars or GBP, of the Group's net assets, earnings and any declared dividends.

The Group's hedging strategy may not adequately protect it from commodity price risks, foreign exchange and interest rates, which may adversely affect its business, financial condition and results of operations.

The Group's power projects expose it to volatility in the price of fuel, particularly coal prices. In addition, the Group is exposed to interest rate risk resulting from fluctuations in interest rates on its loans. Lending interest rates may increase in the future if the PRC government decides to further tighten its monetary policy. In an effort to reduce its fluctuations in fuel prices, foreign exchange rates and interest rates, the Group assesses the appropriateness of entering into a financial hedge to stabilise its projected revenue streams. While the Group currently does not extensively engage in any hedging activities, it may choose to do so in the future.

Any hedging activities the Group undertakes may fail to protect or could harm its results of operations because, among other things: (i) hedging can be expensive, particularly during periods of volatile prices; (ii) available hedges may not correspond directly with the risks that the Group is seeking to manage; (iii) the duration of the hedge may not match the duration of the risk that the Group is seeking to manage; and (iv) the counterparty or clearing agent to a hedging transaction may default on its obligation to pay or deliver under the forward contract. The Group's inability to effectively manage risks associated with potential hedging activities may have a material adverse effect on its business, financial condition and results of operations.

The Company is a holding company, and depends on distributions from its subsidiaries and associates. Any inability to receive distributions or dividends from, any defects in the operation of, or any inefficient management of its subsidiaries and associates may have a material adverse effect on its business, financial condition and results of operations.

In recent years, the Company has expanded its business scale while the number of subsidiaries has increased. To a certain extent, this has brought difficulties of the management of organisation, finance and production, and higher demands on the effectiveness of the internal control system. There may be inadequate management risks caused by poor control of subsidiaries which may adversely affect the Company's operating results. At the same time, as the Company may not be directly engaged in business activities as the controlling shareholder, the main business is carried out by the subsidiaries. Therefore, the operating status, financial status and dividend policy of the subsidiaries directly affect the investment income and cash flow obtained by the Company. If the profit distribution of the Company's holding subsidiary is reduced, this will have a material adverse effect on its financial condition.

Furthermore, if the subsidiaries and associates incur debt on their own behalf in the future, the loan agreements governing that debt may restrict their ability to pay dividends or make other payments to the Company. Any inability to receive distributions or dividends from the subsidiaries and associates may have a material adverse effect on the Company's business, financial condition and results of operations.

Risks related to the PRC

Changes in the economic, political and social conditions in the PRC may have a material adverse effect on the Group's business, results of operations and financial condition.

A substantial majority of the Group's assets are located in China, and substantially all of its revenue is derived from its businesses in China. Accordingly, the Group's business, financial condition, results of operations and prospects are, to a material extent, subject to economic, political and legal developments in the PRC. The PRC economy differs from the economies of developed countries in many respects, including, among other things, government involvement, level of economic development, growth rate, foreign exchange controls and resources allocation.

Although the PRC economy has been transitioning from a planned economy to a more market-oriented economy for almost four decades, a substantial portion of productive assets in the PRC is still owned by the PRC government. The PRC government also exercises significant control over the economic growth of the PRC through allocating resources, controlling payments of foreign currency-denominated obligations, setting monetary policy and providing preferential treatment to particular industries or companies. In recent years, the PRC government has implemented measures emphasising the utilisation of market forces in economic reform and the establishment of sound corporate governance practices in business enterprises. These economic reform measures may be adjusted or modified, or applied inconsistently, from industry to industry or across different regions of the country. If the business environment in China changes, the Group's business in China may also be materially and adversely affected.

The PRC legal system is evolving and may have uncertainties that could limit the legal protection available to the Group and investors.

The Company is incorporated under the laws of the PRC. The PRC legal system is based on written statutes. Since the late 1970s, the PRC government has promulgated laws and regulations dealing with economic matters, such as foreign investment, corporate organisation and governance, commerce, taxation and trade, with a view towards developing a comprehensive system of commercial law. However, as many of these laws and regulations are relatively new and continue to evolve, these laws and regulations may be subject to different interpretation and inconsistently enforced. In addition, there is a limited volume of published court decisions, which may be cited for reference but are not binding on subsequent cases and have limited precedential value unless the Supreme People's Court otherwise provides. These uncertainties relating to the interpretation and implementation of PRC laws and regulations may adversely affect the legal protections and remedies that are available to the Group and investors.

Investors may have limited recourse against the Company or the Company's Directors, Supervisors and executive officers because they generally conduct their operations outside the United Kingdom.

The Company's main presence outside the UK may limit the legal recourse of investors against it or its Directors, Supervisors or executive officers. The Company is incorporated under the laws of the PRC and a substantial majority of its assets and subsidiaries are located in the PRC. In addition, all of the Company's Directors, Supervisors and executive officers reside within the PRC and the assets of these Directors, Supervisors and executive officers are likely to be located within the PRC. As a result, it may not be possible to effect service of process within the UK or elsewhere outside the PRC upon the Company's Directors, Supervisors and executive officers. Moreover, the PRC has not entered into treaties or arrangements providing for the recognition and enforcement of judgements made by courts of the UK or most other western countries. As a result, recognition and enforcement in the PRC of judgements of a court in any of these jurisdictions in relation to any matter that is not subject to a binding arbitration provision may be difficult or impossible.

Presentation of Financial Information

This Registration Document contains:

- Consolidated historical financial information on the Group as at and for the three years ended 31 December 2016, 31 December 2017 and 31 December 2018 (the "**Annual Historical Financial Information**") prepared in accordance with International Financial Reporting Standards as adopted by the EU ("**IFRS**") as issued by the International Accounting Standards Board ("**IASB**"), which are the subject of an Accountant's report from BDO LLP; and
- Consolidated condensed interim financial information on the Group as at and for the six months ended 30 June 2019 (together with comparative financial information for the six months ended 30 June 2018) (the "**Interim Historical Financial Information**") prepared in accordance with IAS 34 as issued by the IASB, which have been reviewed by BDO LLP.

The Annual Historical Financial Information and the Interim Historical Financial Information are collectively referred to herein as the "**Historical Financial Information**".

EBITDA and EBITDA Margin

EBITDA and EBITDA margin are not IFRS measures and should not be considered as an alternative to net profit, net margin or any other performance measures derived in accordance with IFRS or as an alternative to cash flow from operating activities or as a measure of the Group's liquidity. The Group believes that inclusion of EBITDA and EBITDA margin is appropriate to provide additional information to investors about the Group's operating performance and to provide a measure of operating results unaffected by differences in capital structures, capital investment cycles and ages of related assets among otherwise comparable companies. EBITDA and EBITDA margin have limitations as analytical tools, and should not be considered in isolation, or as a substitute for analysis of the Group's operating results as reported under IFRS.

A reconciliation of profit before tax from continuing operations for the period/year to EBITDA and EBITDA margin can be found in "Operating and Financial Review—Key Performance Indicators and Other Financial Metrics".

Market Data, economic and industry data

This Registration Document contains historical market data and forecasts which have been obtained from industry publications, market research and other publicly available information. Certain information regarding market size, market share, market position, growth rates and other industry data pertaining to the Group and its business contained in this Registration Document consists of the Company's estimates and conclusions based on their review of internal Group data, external third-party data and reports compiled by professional organisations and other sources, including Frost & Sullivan (Beijing) Inc., Shanghai Branch Co. ("**Frost & Sullivan**"), an industry consultant firm of Room L235X, 1st Floor, No. 179, Maotai Road, Changning District, Shanghai.

Frost & Sullivan has prepared, at the request of the Group for the purposes of this Registration Document, a report, dated 28 October 2019, on the Group and the markets in which it operates (the "**Frost & Sullivan Report**"). The Frost & Sullivan Report is an instance of expert information, commissioned by the Group. See "*General Information*" for further details.

The Group does not intend, and does not assume any obligation, to update industry or market data set forth in this Registration Document. Because market behaviour, preferences and trends are subject to change, recipients of this Registration Document should be aware that market and industry information in this Registration Document and estimates based on any data therein may not be reliable indicators of future market performance or the Group's future results of operations. Moreover, future results and events may differ materially from the industry and market data projections and estimates contained in this Registration Document because of a series of reasons, including but not limited to: general market, macro-economic, governmental and regulatory trends; competitive pressures; technological developments; and commercial, managerial, operational or financial factors. Accordingly, there can be no assurance that such projected results or estimates will be attained.

The Company confirms that all third-party data contained in this Registration Document has been accurately reproduced and, so far as the Company is aware and able to ascertain, no facts have been omitted that would render the reproduced information inaccurate or misleading. Where third-party information has been used in this Registration Document, the source of such information has been identified.

Currency

In this Registration Document:

- "**Renminbi**" or "**RMB**" refers to Renminbi, the lawful currency of the PRC; and
- "**US Dollars**" or "**US$**" refers to the lawful currency of the United States of America.

Rounding

Some numerical figures included in this Registration Document have been subject to rounding adjustments. Accordingly, numerical figures shown as totals in certain tables may not be an arithmetic aggregation of the figures that preceded them.

No incorporation of website information

The contents of the websites of the Company and the Group do not form any part of this Registration Document.

Forward-looking statements

Certain statements in this Registration Document are not historical facts and are "forward-looking". Forward-looking statements include statements concerning plans, objectives, goals, strategies, economic and regulatory conditions affecting the Group, future events or performance, and underlying assumptions and other statements, which are other than statements of historical facts. The words "believe", "expect", "anticipate", "intend", "estimate", "forecast", "project", "will", "may", "target", "should" and similar expressions identify forward-looking statements but are not the exclusive means of identifying such statements. Forward-looking statements appear in a number of places in this Registration Document including, without limitation, "*Risk Factors*", "*Business*" and "*Operating and Financial Review*".

The forward-looking statements in this Registration Document are based upon various assumptions, many of which are based, in turn, upon further assumptions, including, without limitation, management's examination of historical operating trends, data contained in its records and other data available from third parties. Although the Company believes that these assumptions were reasonable when made, these assumptions are inherently subject to significant uncertainties and contingencies which are difficult or impossible to predict and which are beyond its control, and the Company may not achieve or accomplish these expectations, beliefs or projections. The occurrence or non-occurrence of an assumption could cause the Company's actual financial condition and results to differ from or fail to meet expectations expressed or implied by, such forward-looking statements. Important factors that could cause the Group's actual results to so vary include, but are not limited to, those described in "*Risk Factors*", which should be read in conjunction with other cautionary statements that are included in this Registration Document.

When reviewing forward-looking statements, recipients of this Registration Document should carefully consider the foregoing factors and other uncertainties and events, especially in light of the political, economic, social and legal environment in which the Company operates. Such forward-looking statements speak only as at the date on which they are made and are not intended to give any assurances as to future results. The Company undertakes no obligation to update or revise any forward-looking statements made in this Registration Document whether as a result of new information, future events or otherwise and the Company assumes no other obligation to publish additional information. Neither the Company nor its management can give any assurance regarding the future accuracy of the opinions set forth herein or as to the actual occurrence of any predicted developments. Accordingly, recipients of this Registration Document should not rely on the forward-looking statements in this Registration Document and recipients are strongly advised to read this Registration Document in its entirety.

All subsequent written or oral forward-looking statements attributable to the Company, or persons acting on the Company's behalf, are expressly qualified in their entirety by the cautionary statements contained throughout this Registration Document. As a result of these risks, uncertainties and assumptions, recipients should not place reliance on these forward-looking statements and should specifically consider the factors identified in this Registration Document that could cause actual results to differ.

Service of process and enforcement of civil liabilities

The Company is a joint stock company incorporated in the PRC with limited liability, and substantially all of its assets and the Group's assets are located outside of the United Kingdom, and all members of the Company's board of directors are resident outside of the United Kingdom. As a result, it may not be possible to effect service of process within the United Kingdom upon the Company or any of its subsidiaries or such persons or to enforce UK court judgements obtained against them in jurisdictions outside the United Kingdom. In addition, it may be difficult to enforce, in original actions brought in courts in jurisdictions outside the United Kingdom, liabilities predicated upon UK securities laws.

The Company has been advised by its PRC legal advisors, Fangda Partners, that there is uncertainty as to whether courts of the PRC would: (i) enforce judgements of English courts obtained against the Company or its Directors, Supervisors and executive officers predicated upon English law; or (ii) entertain original actions brought in the courts of the PRC against the Company or its Directors, Supervisors and executive officers predicated upon English law.

DIVIDEND POLICY

The Company may distribute dividends in the form of cash or by other means that the Company considers appropriate. Any proposed distribution of dividends shall be formulated by the Board and will be subject to shareholders' approval. A decision to declare or to pay any dividends in the future, and the amount of any dividends, will depend on a number of factors, including the Group's results of operations, cash flows, financial condition, payments by its subsidiaries of cash dividends to the Company, business prospects, statutory, regulatory and contractual restrictions on its declaration and payment of dividends and other factors that the Board may consider important.

According to the applicable PRC laws and its Articles of Association, the Company will pay dividends out of its profit after tax only after it has made the following allocations:

- recovery of accumulated losses, if any;
- allocations to the statutory reserve equivalent to 10% of its profit after tax, and, when the statutory reserve reaches and is maintained at or above 50% of its registered capital, no further allocations to this statutory reserve will be required;
- allocation, if any, to a discretionary common reserve fund an amount approved by the shareholders of the Company in a shareholders' meeting.

Furthermore, as set forth in its Articles of Association, if it has profits and no unrecovered losses during the year and there are no significant investment or capital expenditure plans, the Company shall distribute cash dividends. The accumulated profits for distribution in the most recent three fiscal years shall be no less than 30% of the average annual distributable profits realised in the same period. The Group distributes dividends primarily in the form of cash, but may also distribute dividends in the form of stocks or a combination of cash and stocks. Any proposed distribution of dividends is subject to the discretion of the Board and the approval of the shareholders. The Board may recommend a distribution of dividends in the future after taking into account the Group's results of operations, financial condition, operating requirements, capital requirements, shareholders' interests and any other conditions that the Board may deem relevant.

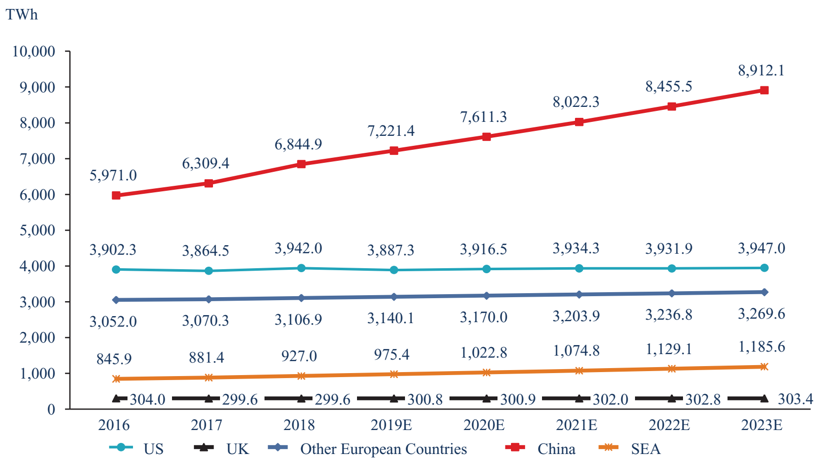
Unless the source is otherwise stated, the market, economic and industry data in this section is extracted from the Frost & Sullivan Report.

GLOBAL POWER INDUSTRY

Global power demand

Consumption volumes

Power consumption in most of the key regions globally experienced positive growth from 2016 to 2018. In 2018, China consumed the most electricity among all countries in the world with total consumption of 6,845 TWh. From a power consumption per capita perspective, the United States recorded a usage of 12,014 kWh, which is the highest among China, US, SEA, UK and Other European Countries* in 2018. The differences in power consumption per capita are mainly driven by the local economic development, industrial structure and residents' living habits. In the US, the residential sector consumes the largest proportion of power. While in China, the industrial sector is the largest power consumer. The chart below shows the historical and forecasted annual power consumption in key regions globally from 2016 to 2023:



	CAGR (18-23E)
China	5.4%
US	0.1%
Other European Countries*	1.0%
SEA	5.0%
UK	0.2%

* Other European Countries refers to European countries except for Russia, Ukraine, Moldova, Belarus, Lithuania, Latvia, and Estonia

Source: EIA, EGAT, MEIH, EMA, Frost & Sullivan

Key market drivers

The key market drivers for power demand include economic developments, electrification and improvements in energy efficiency as a result of technological advancement, among others. In particular, the market has seen rapid demand growth driven by the electric vehicles industry. According to Frost & Sullivan, the global electric vehicle sales volume reached more than 2.3 million units in 2018 and is expected to further increase to 7.3 million by 2023. Power transmission and distribution systems will also be upgraded to meet the expanding electric vehicles charging infrastructure.

Another important source of demand for power generation is the increasing number of data centres being built globally. According to Frost & Sullivan, investments in data centres exceeded US$27 billion in 2018, and is expected to achieve US$39 billion in investments by 2023.

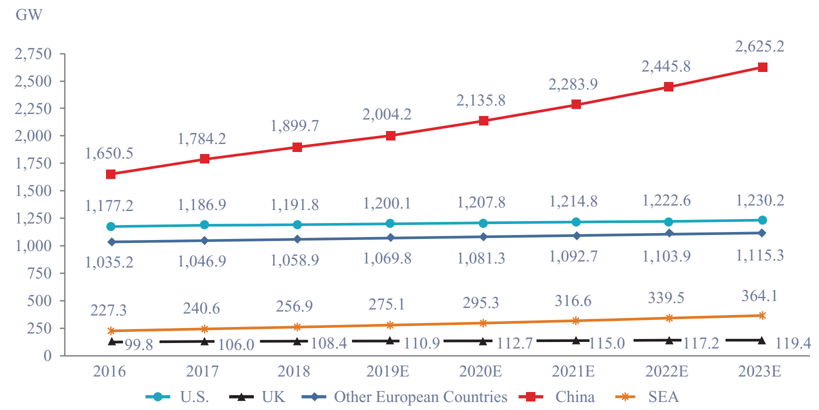
Global power supply

Ongoing trends

In the past decades, an increasing number of countries have introduced substantial incentives to support the renewable energy production. Investment in renewable energy, such as hydropower, wind power and solar power, has increased rapidly and is expected to continue to grow. It is forecasted that by 2023, 95.0% of the newly invested global power generation capacity will be renewable energy, and that 30.0% of the total power generated will be from renewable energy.

Power installed capacity mix and output

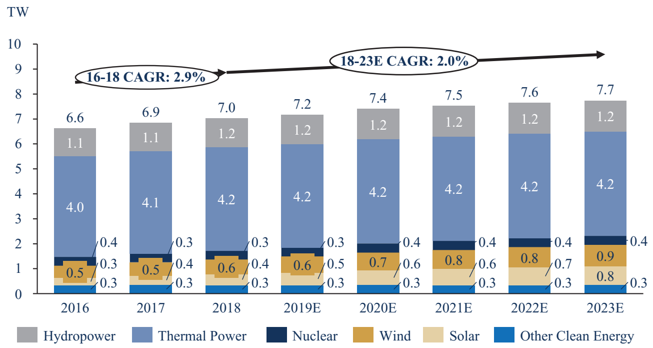
The global cumulative power installed capacity stood at 7.0 TW in 2018 and is forecasted to increase to 7.7 TW by 2023. The chart below shows the power installed capacity in major regions globally from 2016 to 2023:



	CAGR (18-23E)
China	5.3%
U.S.	0.6%
Other European Countries*	1.4%
SEA	7.2%
UK	2.0%

Source: EIA, EGAT, MEIH, EMA, EVN, Frost & Sullivan

Among all energy sources, thermal power took the largest market share in 2018, and is expected to remain as the largest energy source by 2023. However, due to the non-renewability of thermal resources and environmental implications, there is expectation of a slowdown in the build-up of thermal installed capacities from 2018 to 2023. Among the clean energy sources, wind power and solar power experienced the fastest growth in the last five years. Such growth is expected to continue going forward, given the decreasing costs of wind and solar power, more sophisticated grid technology and increasingly affordable storage. The chart below shows the historical and forecasted global cumulative power installed capacity by fuel type from 2016 to 2023:



	CAGR (18-23E)
Total	**2.0%**
Hydropower	1.6%
Thermal Power	0.1%
Nuclear Power	0.6%
Wind Power	7.8%
Solar Power	11.3%
Other Clean Energy*	-0.5%

* Other clean energy includes biomass and waste, tide and wave, and geothermal, etc.

Source: EIA, Frost & Sullivan

CHINA POWER INDUSTRY

Macroeconomic backdrop

Nominal GDP per capita

China's nominal GDP per capita increased from RMB53,900 in 2016 to RMB63,400 in 2018, representing a CAGR of 8.5%, and is expected to increase to RMB92,700 in 2023, with a CAGR of 7.9%. Meanwhile, the power consumption per capita has rapidly increased from 3,926 kWh in 2016 to 4,900 kWh in 2018 with a CAGR of 11.7%. However, based on the data of the US and OECD, China's power consumption per capita is still much lower than major developed countries, indicating a further growth potential. The rising nominal GDP per capita will contribute to the increase in electricity consumption per capita, which will stimulate the development of the PRC power industry.

Urbanisation

China is in the stage of rapid development of urbanisation. In 2018, the urbanisation rate was 59.6% and is expected to reach 64.9% by 2023. The Chinese government targets to increase the urbanisation rate further to 70% by 2030. Further urbanisation process will drive power consumption per capita and moderate population growth will enlarge the power user base.

Industrial upgrade has been promoting domestic FAI growth

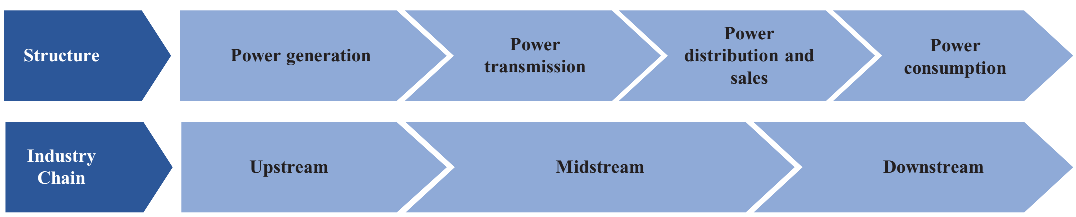
Driven by the upgrade of the industrial sectors, intelligent manufacturing and the vigorous development of the services industry, China's fixed asset investment increased from RMB59.7 trillion in 2016 to RMB63.6 trillion in 2018. The increase in fixed asset investment has also boosted China's power consumption.

The total fixed asset investment in power sector decreased from RMB884.0 billion to RMB809.4 billion during the years from 2016 to 2018. However, the total fixed asset investment in power generation is facing a turning point and is forecasted to gain slow recovery in the coming years. According to the statistics from the CEC, compared to the same period last year, the fixed asset investments in the hydropower and wind power sectors during the period from January to May 2019 increased by 33.8% and 55.0%, respectively. According to Frost & Sullivan, the total fixed asset investment in domestic power sector is expected to reach RMB917.5 billion in 2023.

The construction of an ultra-high-voltage (UHV) transmission network is still the core of power grid development in China. In accordance with the plan, the government is facilitating the development of several UHV lines including the UHV lines under construction in the Southwestern China, as well as in the middle reaches of Yalong River-Jiangxi, which will improve the capability of transmitting power generated in the Southwestern China to other regions.

China power value chain overview

China's power market consists of four parts, including power generation, power transmission, power distribution and sales, and power consumption.



Power Generation

China's power market is dominated by state-owned power operators. Top ten state-owned companies accounted for close to 60% of the total installed capacity in China in 2018, while private power operators only made limited contribution. The entry barriers to the China power market is high where the market players need to obtain both administrative permissions to conduct power business and initiate power projects, and capital to support large-scale projects. The table below lists leading power operators in China by total installed capacity as at 31 December 2018.

Rank	Company	Consolidated Installed Capacity (GW)	Market Share
1	China Energy Investment Group	238.0	12.5%
2	China Huaneng Group	176.6	9.3%
3	China Huadian Group	148.0	7.8%
4	State Power Investment Corporation	140.0	7.4%
5	China Datang Group	138.9	7.3%
6	China Three Gorges Corporation	70.3	3.7%
7	China General Nuclear Power	51.2	2.7%
8	China Resources Power	39.7	2.1%
9	*SDIC Power*	*34.1*	*1.8%*
10	Guangdong Energy Group	32.0	1.7%
	Total	**1,068.8**	**56.3%**

Source: Public Information, Frost & Sullivan

Power transmission

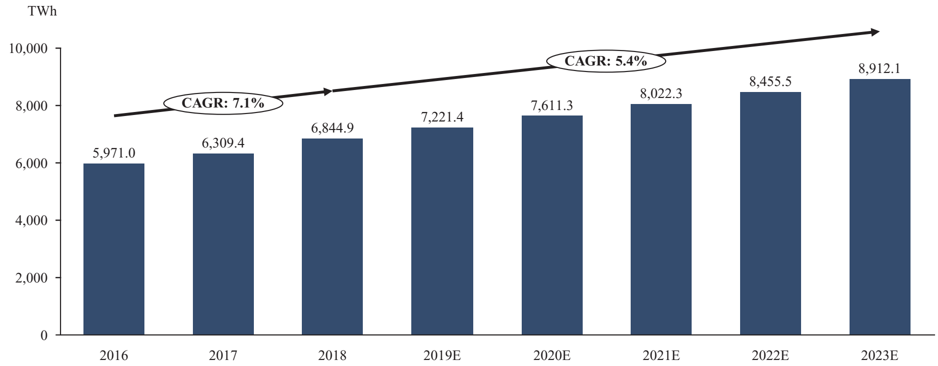
Since 2002, according to the national power system reform, the State Grid Corporation of China ("State Grid") and China Southern Power Grid have been established to operate the majority of power grids in China. State Grid is responsible for the power transmission in 26 provinces of China, which covers around 90% of the national territorial area. China Southern Power Grid is responsible for power transmission in five southern provinces of China. Except for State Grid and China Southern Power Grid, there are some local power grid enterprises as well, such as Inner Mongolia Power Group, which is responsible for power transmission in western Inner Mongolia.

Power distribution and sales

State Grid and China Southern Power Grid are major participants in power distribution and sales in China. However, power distribution and sales have been open to private sector capital with the reform of power market.

Power demand and consumption in China

The below chart shows the historical trends and forecast of total power consumption in China:



Source: CEC, Frost & Sullivan

Characteristics and trends of power consumption in China

Power consumption evolution and sector/type changes

The industrial sectors contributed most of the power consumption in 2018, which took 69.0% of total power consumption. However, with the structural transformation of China's economy towards the development of the services industry, the power consumption in tertiary industry has increased rapidly. The power consumption of the industrial sectors and the services industry grew at CAGR of 5.3% and 13.1%, respectively from 2016 to 2018.

Seasonality of power demand

Influenced by the climatic conditions and holiday schedules, there exists seasonality in power consumption in China. Generally, July, August and December are the peak seasons and February is the low season. The power generation and consumption in the remaining months are at similar levels.

Regional distribution of power demand

The following table shows the power consumption and power generation within the regions from 2016 to 2018:

TWh	**Power Generation**			**Power Consumption**		
Region	**2016**	**2017**	**2018**	**2016**	**2017**	**2018**
East	2,394.2	2,517.1	2,670.6	2,938.0	3,064.9	3,277.8
West	2,067.0	2,260.4	2,501.2	1,557.7	1,685.5	1,868.4
Central	1,218.4	1,319.3	1,438.2	1,112.0	1,182.3	1,295.9
Northeast	343.2	356.1	384.0	363.3	376.7	402.7
Total	**6,022.8**	**6,452.9**	**6,994.0**	**5,971.0**	**6,309.4**	**6,844.9**

Source: CEC, Frost & Sullivan

At present, the power consumption is mainly concentrated in eastern China. As at 2018, it accounted for 47.9% of China's total power consumption. China currently supports the construction of trans-regional transmission infrastructure to enhance inter-provincial transmission. "West-to-East

Power Transmission" is one of the most important transmission projects in China. Future development of transmission infrastructure in China is expected to further stimulate cross-regional power demand.

Key drivers of the power consumption in China

Continuous growth of economy and power demand

With the increasing of GDP and growing demand from industrial production, the power consumption kept growing in the last five years. Additionally, with the improvement of living standards, residential power consumption has increased accordingly.

Industrial upgrading and changes in industrial power structure

In recent years, the industrial sectors is gradually turning into to intelligent and high-end manufacturing. In addition, under the promotion of the government, China's tertiary industry has also ushered in a boom. Driven by the upgrading of industries and the transformation of industrial structure, the demand for power consumption continues to grow.

Development of new and emerging sectors

Driven by the continuous technological advancements and supportive policies, the new energy vehicle market is experiencing rapid growth in China. China is the largest new energy vehicle market in the world with sales volume of more than 1.25 million in 2018 and total ownership of more than 2.61 million by the end of 2018 according to the statistics from the CAAM. Additionally, China is actively promoting the development of rail transit. The total mileage of electrified railways, in 2018, was 91.7 thousand kilometres according to the NRA. Driven by supportive policies and continuous technological innovations, the information technology industry in China will maintain a rapid growth in the future. The development of information technology industry will drive increasing demand for power.

Power supply in China

The total power output in China reached 6,994.0 TWh in 2018, and is expected to further grow to 9,123.6 TWh in 2023.

Power output and installed capacity by fuel type

The following table sets out the historical and forecast power generation, by fuel type, from 2016 to 2023:

Unit: TWh	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Hydropower	1,174.8	1,194.7	1,232.9	1,275.9	1,320.5	1,370.5	1,426.6	1,489.3
Thermal power	4,327.3	4,587.7	4,923.1	5,079.3	5,245.5	5,422.3	5,610.6	5,811.0
Wind power	240.9	304.6	366.0	435.3	506.6	577.5	653.3	731.9
Solar power	66.5	117.8	177.5	227.7	287.8	351.5	422.5	498.7
Others	213.3	248.1	294.5	369.7	427.9	483.9	528.5	592.8
Total	**6,022.8**	**6,452.9**	**6,994.0**	**7,387.8**	**7,788.3**	**8,205.7**	**8,641.5**	**9,123.6**

Source: CEC, NEA, Frost & Sullivan

The table sets forth the historical and forecast power installed capacity by fuel type during 2016 to 2023:

Unit: GW	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Hydropower	332.1	343.8	352.3	363.5	379.9	396.4	413.7	431.6
Thermal power	1,060.9	1,110.1	1,143.7	1,177.3	1,211.8	1,248.2	1,285.6	1,324.2
Wind power	147.5	163.3	184.3	203.6	221.3	239.1	256.8	274.5
Solar power	76.3	130.4	174.6	209.1	243.6	278.1	312.6	347.0
Others	33.7	36.6	44.9	50.6	57.2	63.8	70.4	77.0
Total	**1,650.5**	**1,784.2**	**1,899.7**	**2,004.2**	**2,113.9**	**2,225.5**	**2,339.0**	**2,454.4**

Source: CEC, NEA, Frost & Sullivan

Currently, thermal power is, and will continue to be, the major power source in China. However, the Chinese government is promoting the development of clean energy, including hydropower, wind power, solar power and nuclear power. The hydropower is the second largest power source and is growing faster than thermal power in terms of power output. The proportion of wind power and solar power in total power output has also been growing steadily.

Competitive landscape of power suppliers in China

Leading players in hydropower sector

The hydropower market is relatively concentrated in China, and the top ten operators accounted for approximately 57.5% of total consolidated installed capacity in 2018. As the seventh largest power operator of installed capacity in China, SDIC Power operated 16.7 GW hydropower installed capacity as at 31 December 2018, which accounted for 4.7% of the market share.

Rank	Company	Consolidated Installed Capacity (GW)	Market Share
1	China Three Gorges Corporation	57.6	16.4%
2	China Huadian Group	27.2	7.7%
3	China Datang Group	27.0	7.7%
4	China Huaneng Group	26.1	7.4%
5	State Power Investment Corporation	24.5	6.9%
6	China Energy Investment Group	18.7	5.3%
7	*SDIC Power*	16.7	4.7%
8	Guangdong Energy Group	2.3	0.7%
9	Gansu Electric Investment Group	1.7	0.5%
10	Sichuan Chuantou Energy	0.7	0.2%
	Total	**202.5**	**57.5%**

Source: Frost & Sullivan

Leading players in renewable energy

China power operators are accelerating the deployment of renewable energy. SDIC Power ranks second among the top ten power operators in terms of the proportion of renewable energy installed capacity to total installed capacity. As at 31 December 2018, SDIC Power's renewable energy accounted for approximately 53.7% of the total installed capacity.

Ranking	Company	Proportion of renewable energy installed capacity
1	China Three Gorges Corporation	96.3%
2	*SDIC Power*	53.7%
3	China General Nuclear Power	52.6%
4	State Power Investment Corporation	48.9%
5	China Huadian Group	39.5%
6	China Datang Group	32.0%
7	China Huaneng Group	27.1%
8	China Energy Investment Group	24.5%
9	China Resources Power	20.4%
10	Guangdong Energy Group	10.2%

Source: Frost & Sullivan

Leading players in thermal power sector

The thermal power market is also relatively concentrated in China, and the top ten operators accounted for approximately 58.5% of total thermal power consolidated installed capacity in 2018. As one of the top ten power operators in China, SDIC Power's thermal power installed capacity reached 15.8 GW as at 31 December 2018, which accounted for 1.4% of the market share.

Rank	Company	Consolidated Installed Capacity (GW)	Market Share
1	China Energy Investment Group	179.7	15.7%
2	China Huaneng Group	128.7	11.3%
3	China Datang Group	94.5	8.3%
4	State Power Investment Corporation	82.4	7.2%
5	China Huadian Group	63.3	5.5%
6	Zhejiang Zheneng Electric Power	31.8	2.8%
7	China Resources Power	31.6	2.8%
8	Guangdong Energy Group	28.7	2.5%
9	*SDIC Power*	15.8	1.4%
10	Jingneng Group	11.5	1.0%
	Total	**667.9**	**58.5%**

Source: Frost & Sullivan

Power supply trends in china

Restructuring of power supply

The concerning situation of climate change and the intensified control of air pollution require the development of clean energy power plants. Meanwhile, power generators are also dedicated to improve the electricity efficiency, reduce the cost of electricity generation and increase return on investment of power plant through technology innovation.

Structural reform of the coal-fired power sector

In order to reduce the overcapacity in the coal-fired power industry, China has issued several policies to promote the supply-side reform in the coal-fired power industry. Many of the small coal-fired power plants tend to be phased out. The coal-fired newly installed capacity is under strict control. Additionally, China has been facilitating the implementation of emission reduction policies.

Prioritised dispatch of power generation

In order to better utilise the excess hydropower capacity, particularly in southwest China, the central government issued regulatory guidance (such as Notice on Promoting Hydropower Consumption in Southwest China (《促进西南地区水电消纳的通知》) to promote the optimised allocation of hydraulics resources and prioritising hydropower generation. For instance, regarding the cross-region power transmission, hydropower in Southwestern China shall enjoy certain level of preferential offtake arrangement. Moreover, power grid constructions for hydropower transmission from southwest to the rest of China (Guangdong, Guangxi and Jiangxi provinces) are encouraged and emphasised to ensure the unimpeded power transmission in future.

Furthermore, NDRC and NEA also set out the Clean Energy Absorption Action Plan (2018-2020) (《清洁能源消纳行动计划（2018-2020年）》) in 2018, aiming to improve the utilisation rate of clean power generation through various efforts. According to the plan, by 2020, the national hydropower utilisation rate should reach above 95%; the national average wind power utilisation rate should strive to achieve 95%, while the wind power curtailment rate to be controlled at a reasonable level, i.e. at around 5%; the national average solar power utilisation rate should be higher than 95%, while the solar power curtailment rate to be under 5%.

Power prices in China

Power and power price evolution in China

Currently, the output of the plants consists of two parts, the planned output, according to the power generation plan, and the market-oriented output. In the planned power system, the government determines the planned power generation based on power demand. National grid companies purchase power from power generation plants based on the benchmark prices, which are also regulated by the government. With the promotion of the power system reform, the power sales through market-oriented power transactions keep increasing and accounted for around 30% of China's total power consumption in 2018.

In order to promote the development of clean energy, the NDRC and the NEA have published notices related to the orderly liberalisation of the power generation sector. The government stipulates that the existing large-scale hydropower, nuclear power, wind power, and solar power plants should be given priority in the dispatch of power. The total amount of prioritised clean power output in any given year should not be lower than the amount in the previous year or the average of those in recent years.

Key drivers

The power price in China is influenced by government policies, the cost of power generations and the dynamics of market supply and demand.

The cost of power is the main basis for the government to stipulate the power price. There are several factors that can affect the cost of power generation, such as the variation in fuel prices. Additionally, the development of technology also influences the cost of power generation, especially for solar and wind power.

The relationship between power supply and demand will gradually have increasing impacts on the power price with the promotion of power price marketisation.

Historical and forecast on-grid prices

Pricing method

Hydropower

The relevant pricing authorities primarily use the following three pricing methods to determine the on-grid tariff: (i) local price backward pricing; (ii) individual project pricing; and (iii) benchmark pricing;

- Hydropower projects whose generated power is subject to inter-provincial transmission are subject to the local price backward pricing method where the NDRC determines the on-grid tariff. Such on-grid tariff is determined with reference to the local market price at the power receiving side, after deducting the transmission price charged by the grid company.
- Certain hydropower projects are subject to the individual project pricing method where the on-grid tariff is determined by the relevant pricing authority on a case-by-case basis. One of the key considerations is the construction and operating costs and the rate of return of the projects.
- Other hydropower projects are usually subject to the benchmark pricing method where the on-grid tariff is calculated based on the average costs of hydropower stations of the same category.

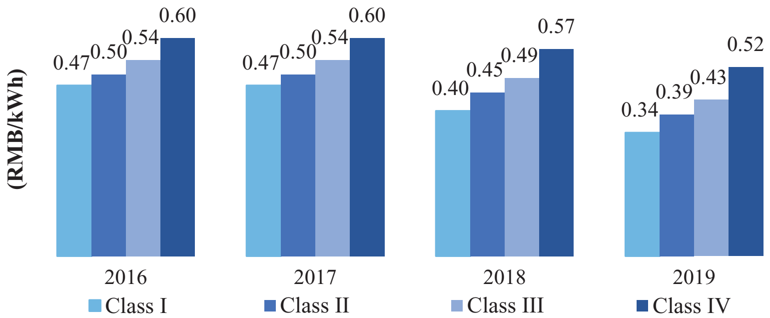
Coal-fired Power

The on-grid tariffs of coal-fired power projects are determined by factors including, but not limited to, the benchmark price and the price compensation. The benchmark price is announced by primarily by the NDRC in consideration of the average cost of coal-fired power generation, which is affected by various factors, including the average utilisation hours and the depreciation of equipment. The price compensation is provided when certain standards such as denitrification and ultra-low emission are met.

Wind Power

In China, wind power on-grid tariff is subsidised by the Renewable Energy Development Fund since 2009.

Based on different levels of wind resources, China is divided into four regions with differential on-grid tariffs. As the costs of wind power generation have been decreasing in recent years, the on-grid tariff for wind power have also been reduced by the NDRC.

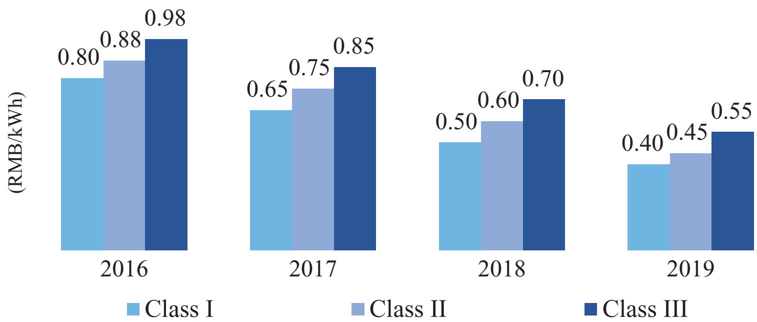


Source: NDRC, Frost & Sullivan

Since May 2019, the original benchmark on-grid tariff for wind power has been changed to the guidance price set by the NDRC. All newly approved on-grid tariff for centralised onshore wind power projects shall be determined through competition and shall not be higher than the guidance price in the region where the project is located.

Solar

China has adopted on-grid tariff for utility-scale solar power generation since 2011, based on different solar radiation conditions in different regions. The on-grid tariff for solar power is also declining on the back of decreasing power generation costs of solar power. The following chart shows the on-grid price of utility-scale solar power generation in different classes of regions in China from 2016 to 2019.



Source: NDRC, Frost & Sullivan

In April 2019, the NDRC announced that the newly added on-grid tariff for centralised solar power stations shall be determined in principle through market competition, and shall not exceed the guidance price set by the NDRC in the resource area.

Market policy and regulation

Environment related targets

The 13th Five-Year Plan for Power Development (2016-2020) 《电力发展“十三五 " 规划（2016-2020）and the Strategy of Reforming Energy Production and Consumption

(2016-2030)《能源生产和消费革命战略（2016-2030）point out that the development of clean energy is a strategic focus of China's power industry in both short term and long term.

- According to the "Plans for Renewable Energy Development During 'the 13th Five-Year Plan' Period"《可再生能源"十三五"规划》, China's non-fossil energy consumption as a percentage of primary energy consumption is to set to reach 15% and 20% by 2020 and 2030, respectively. It is targeted that by 2020, the total installed capacity of renewable energy power plants will reach 680 GW and that the total power generation from renewable energy will reach 1.9 trillion kWh, accounting for 27% of the total power generated. It is also targeted that by 2020, the installed capacity and total power generation of hydropower plants will reach 340 GW and 1.3 trillion kWh respectively
- According to the Plans for Energy Development During the "13th Five-Year Plan" Period《能源发展"十三五"规划》, emission of CO_2 per unit of GDP shall be 18% less than that in 2015
- The Coal Power Conservation and Emission Reduction Transforming Plan (《煤电节能减排升级与改造行动计划》) specifies that the coal consumption per kWh of power generated by newly-built coal-fired power plants shall be below 300g of standard coal equivalent

To promote the healthy development of renewable energy

In order to support the development of renewable energy, the Renewable Energy Law, implemented in 2006, specifies the mechanism for compensating the difference between the on-grid tariff of renewable energy and the average on-grid tariff of conventional energy, by collecting additional compensation from sales of power nationwide.

With the development of renewable energy power generation technology, the cost of renewable energy power generation in resourceful areas with low construction cost and sound investment environment is approaching the cost of coal-fired power. Under this circumstance, the government is planning to progressively cancel the subsidies for renewable-energy power and encourage the development of the renewable-energy power plants. According to the Notice on Promoting the Grid Parity of Wind Power and Solar Power Without Subsidies (《关于积极推进风电、光伏发电无补贴平价上网有关工作的通知》) issued by NDRC and NEA in January 2019, local governments should summarise the experience and promote the grid parity of wind power and solar power pilot projects, combined with resources and new technologies. Power grid enterprises should ensure full use of the output from wind power and solar power projects and monitor the abandoned wind and solar power.

In order to accelerate the transition from on-grid price to subsidy-free grid parity for wind and solar power generation, NEA issued the Notice on 2018 Annual Wind Power Construction Management Requirements in 2018《关于2018年度风电建设管理有关要求的通知》and the Notice on the Work Concerning Construction of Wind Power and Photovoltaic Power Generation Projects in 2019《关于2019年风电、光伏发电建设管理有关事项的通知》in 2018 and 2019, putting forward the requirements for implementing the bidding mechanism and subsidy reduction for both wind and solar power.

Marketisation trend

On 20 August 2015, the NDRC promulgated the Several Opinions of Further Deepening the Reform of the Electric Power System (hereinafter referred to as Opinions), marking the beginning of a new round of China's power market liberalisation reform. The Opinions aim to promote the realisation of marketised trading mechanism between power generation end and sales end through rational system design as well as the marketisation of the power pricing mechanism. In addition, the Opinions also specify that the power distribution and sales sectors will be liberalised in an orderly manner.

Recently, according to the Decisions of Standing Committee of the State Council Meeting held on 26 September 2019, the coal-electricity price linkage mechanism will be replaced by a new market-based "benchmark price-plus-floating" mechanism from 1 January 2020.

UK POWER INDUSTRY

Value chain of the UK power market

The UK power market is one of the most mature and diversified power markets in Europe, and consists of four parts, including generation, transmission, distribution and supply.

Power Generation

The UK generation ownership is highly diversified compared to other European electricity markets with over 150 firms operating with licenses to generate power in the UK. In terms of cumulative power installed capacity by 2018, major power operators include EDF Energy, SSE, RWE, Uniper and Centrica.

Power Transmission

There are currently three transmission operators permitted to develop, operate and maintain a high voltage system within their own distinct onshore transmission areas. These are National Grid Electricity Transmission plc for England and Wales, Scottish Power Transmission Limited for southern Scotland and Scottish Hydro Electric Transmission plc for northern Scotland and the Scottish islands groups.

Power Distribution

Currently, there are 14 licensed distribution network operators (DNOs) in Britain and each is responsible for a regional distribution services area. The 14 DNOs are owned by six different groups, namely SSE, SP Energy Networks, Electricity North West, Northern PowerGrid, Western Power Distribution, UK Power Networks.

Power Supply

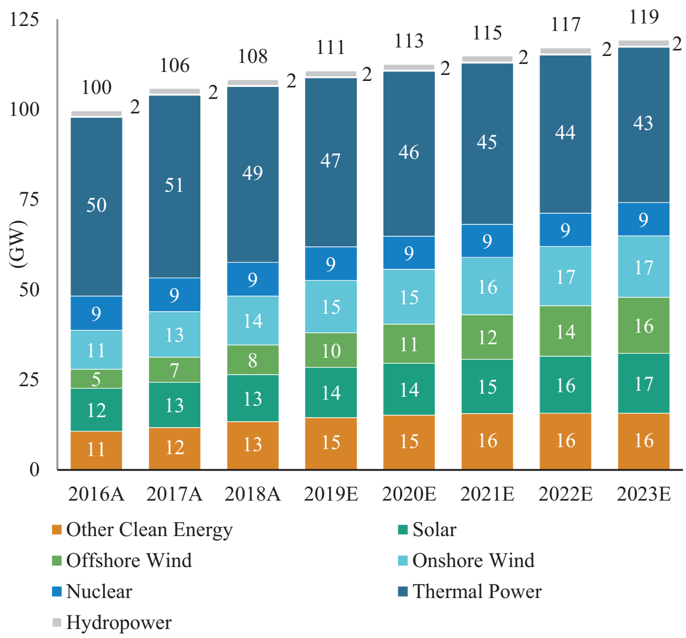
The major power suppliers in UK include EDF Energy, SSE, Npower, E.ON, Centrica, Scottish Power, while a number of smaller, yet growing participants like First Utility, Drax Group, Ovo Energy, etc. are also competing in the UK power supply market.

Power installed capacity

The total cumulative installed capacity in the UK increased slightly over the past 3 years. However, the fuel type structure of power installed capacity has changed significantly with renewable capacity displacing coal-fired output in the generation mix.

In line with other European countries, it was confirmed in September 2017 that the UK government will proceed with action to regulate the closure of unabated coal power generation units by 2025. According to Frost & Sullivan, the cumulative installed capacity of renewable energy is expected to continue growing and continue to replace the installed capacity of coal-fired power.

The chart below shows the historical and forecast cumulative power installed capacity by fuel types in UK from 2016 to 2023.



	CAGR (18-23E)
Total	**2.0%**
Hydropower	1.1%
Thermal Power	-2.4%
Nuclear Power	-0.2%
Onshore Wind Power	4.6%
Offshore Wind Power	13.7%
Solar power	4.8%
Other Clean Energy*	3.3%

* Other clean energy includes biomass and waste, tide and wave, and geothermal, etc.

Source: Frost & Sullivan

UK Wind Power Market

The UK is the world leader in offshore wind with the highest installed capacity globally, totaling 8.2 GW in 2018. Offshore wind generates around 9.0% of electricity in the UK, providing power to 4.5 million homes annually. In 2018 offshore wind generation reached a record level, increasing by 28.0%, from 20.9 TWh to 26.7 TWh.

In the UK, the Crown owns the marine estate, including the seabed around the coast of Britain, from the coastline to a distance of 12 nautical miles offshore and owns the rights to generate electricity from wind, waves and tides in the UK. The Crown Estate manages the marine estate on behalf of the Crown, and leases rights to develop offshore wind to renewable energy developers. 2018 was a record-breaking year for UK offshore wind, and by December 2018 there were 1931 fully operational offshore wind turbines on the UK seabed (43.0% of the European total) with a further 992 under construction.

The market is subject to some competition with a number of players active in developing, building and operating those wind farms aside from SDIC. In terms of cumulative power installed capacity of offshore wind by 2018, major wind power operators include Orsted, Innogy, and Vattenfall.

UK renewables incentive and regulatory regime

Renewable Obligation

The Renewables Obligation (RO) was one of the main support mechanisms for large-scale renewable projects in the UK. It came into effect in 2002 in England and Wales, and Scotland, and followed by Northern Ireland in 2005, the Renewable Obligation places an obligation on UK power suppliers to source an increasing proportion of the electricity they supply from renewable sources. ROCs are certificates issued to operators of accredited renewable generating stations for the eligible renewable electricity they generate. Operators can trade ROCs with other parties. ROCs are ultimately used by suppliers to demonstrate that they have met their obligation. The Renewable Obligation mechanism provided participants with support per MWh on top of the variable wholesale price and the electricity generation accredited under the RO would receive support for 20 years.

However, the Renewable Obligation was closed to solar and onshore wind power project from April 2016 onwards, and to other technologies from April 2017.

Contracts for Differences

The Electricity Market Reform (EMR)'s central mechanism for supporting a range of low carbon technologies is a form of long-term private law contract capable of increasing revenue certainty and bringing forward new investment into the sector. The contracts are structured as Feed-in Tariffs (FiTs) in the form of Contracts for Difference (CfDs), in most cases for a total duration of 15 years. Unlike the prior Renewable Obligation scheme, CfD contracts are intended to support a range of low carbon technologies, including carbon capture and storage as well as renewables. CfDs are managed by the Department for Business, Energy and Industrial Strategy (BEIS) and the UK Treasury, and are allocated within the budget constraints of the 'Levy Control Framework'.

The first CfD auctions concluded in February 2015, with a strike price of £79.23/MWh and £82.50/MWh for the delivery year of 2016/2017 and 2018/2019 respectively; as for the second CfD auctions ran from March to September 2017, the strike price for the delivery year of 2021/2022 and 2022/2023 is £74.75/MWh and £57.50/MWh respectively. Offshore wind made up the main share (over 95%) of the awarded technologies in the past two auction rounds for non-mature technologies.

The third CfD allocation round, for offshore wind farms of no greater than 1.5 GW of capacity, concluded in September 2019, with a strike price of £39.65/MWh and £41.611/MWh for the delivery year of 2023/2024 and 2024/2025 respectively.

Recipients of this Registration Document should read this "Business Description" in conjunction with the more detailed information contained in this Registration Document, including the financial and other information appearing in the F-pages of this Registration Document. Where stated, financial information in this section has been extracted without material adjustment from the financial information from the F-pages of this Registration Document.

OVERVIEW

The Group is a leading power generation company in China, with a diversified portfolio of projects across hydropower, coal-fired power, wind power and solar power. The Group develops, acquires and operates power projects and sells the electricity generated by them to grid companies. According to Frost & Sullivan, as at 31 December 2018, the Group was the ninth largest power generation company in China in terms of consolidated installed capacity. As at 31 December 2016, 2017, 2018 and 30 June 2019, the Group's consolidated installed capacity was 29.3 GW, 31.6 GW, 34.1 GW and 34.4 GW, respectively. As at 30 June 2019, the breakdown of the Group's consolidated installed capacity for hydropower, coal-fired power, and wind and solar power projects was 48.8%, 45.8% and 5.4%, respectively. The Group's consolidated renewable energy installed capacity (consisting of hydropower, and wind and solar power) was 18.3 GW as at 31 December 2018, accounting for 53.7% of its consolidated installed capacity, ranking second among the top ten power generation companies in China, according to Frost & Sullivan.

The Group has a leading hydropower business in China. Among all publicly listed PRC power generation companies, the Group was the third largest hydropower company in China in terms of consolidated hydro installed capacity of 16.7 GW as at 31 December 2018, according to Frost & Sullivan. The Group's hydropower projects are primarily located along the Yalong River, the Lantsang River and the Yellow River. These rivers are rich in hydrological resources, and are suitable for developing cascade hydropower projects. In particular, the Yalong River is the third largest hydropower base among China's 13 largest hydropower bases with an exploitable capacity of over 30 GW, and the Group's principal subsidiary, Yalong River Hydropower, has the exclusive right to develop the hydropower resources of the Yalong River. Along the Yalong River, the Group operates five large-scale hydropower projects that are equipped with two regulating reservoirs, with a consolidated installed capacity of 14.7 GW. The Group is developing two hydropower projects on the Yalong River with a total planned capacity of 4.5 GW, which will be equipped with a multi-year regulating reservoir. The two hydropower projects under development are expected to commence operation in phases between 2021 and 2023. The Group's cascade hydropower projects and large-scale regulating reservoirs are combined to optimise the allocation of hydraulics resources, mitigate the adverse hydrologic conditions, maximise generation efficiency and stabilise power generation. Meanwhile, benefiting from favourable clean energy policies, most of the Group's hydropower projects in operation enjoy prioritised on-grid output and relatively stable on-grid tariffs. Designated ultra-high-voltage transmission lines were built under the support of the state to connect three of the Group's hydropower projects on the Yalong River to one of the most developed provinces in China with a high demand for power. As a result, the average utilisation hours of the Group's hydropower projects in 2016, 2017 and 2018 amounted to 4,822, 4,965 and 5,048, respectively, far above the average utilisation hours of hydropower projects in China during the same periods, according to Frost & Sullivan.

The Group has been actively optimising its coal-fired power projects by focusing on large capacity, efficient and energy-saving power units. The Group has nine ultra-supercritical coal-fired units and three supercritical coal-fired units, with total installed capacity of 10,550.0 MW. As at 30 June 2019, all of the Group's coal-fired installed capacity of 15,756.0 MW consists of large units with a single installed capacity of at least 300.0 MW. As at the same date, the Group had eight units at the GW level, representing 50.8% of its consolidated coal-fired installed capacity, higher than other A-share listed power generation companies with coal-fired installed capacity over 5.0 GW. Moreover, all of the coal-fired power generating units operated by the Group have been equipped with desulphurisation, dedust and denitrification equipment. Over 90% of the Group's coal-fired power units in terms of installed capacity have ultra-low emissions.

In addition, the Group is dedicated to expanding its wind and solar power portfolio, whose combined installed capacity has been growing at a CAGR of 43.9% over the past five years. Moreover, leveraging its early mover's advantage in acquiring and operating offshore wind power projects in the UK, the Group expands its international footprints by further developing overseas renewable energy projects.

The Group's total revenue increased steadily from RMB29,270.8 million in 2016 to RMB31,643.1 million in 2017 and further to RMB41,011.4 million in 2018, with a CAGR of 18.4%. In the same periods, the Group's net profit was RMB7,859.6 million, RMB6,559.5 million and RMB8,315.6 million, respectively, its profit attributable to owners of the Company was RMB3,916.4 million, RMB3,232.3 million and RMB4,329.2 million, and the net cash flows generated from operating activities was RMB19,009.7 million, RMB18,089.9 million and RMB19,132.9 million, respectively.

HISTORY

The Company was established on 30 September 2002 following an asset swap agreement, pursuant to which SDIC injected certain power generating assets to Hubei Xinghua Holdings Co., Ltd., which was incorporated on 23 February 1989 and listed on the Shanghai Stock Exchange under stock code 600886 on 18 January 1996. In November 2002, Hubei Xinghua Holdings Co., Ltd. was renamed SDIC Huajing Power Holdings Co., Ltd. Following the asset injection, SDIC became the controlling shareholder of the Company, which was subsequently renamed SDIC Power Holdings CO., LTD on 28 February 2012.

The following sets forth some of the Group's key corporate milestones:

2006 • The Company acquired three major power generating assets from SDIC, including Huaxia Power and SDIC Beibuwan.

2009 • The Company acquired SDIC's other core power generating assets, including a 48.0% equity interest in Ertan Hydropower (subsequently renamed Yalong River Hydropower), a 50.0% equity interest in Dachaoshan Hydropower and other coal-fired power assets.

2010 • The Company acquired an additional 4.0% equity interest in Ertan Hydropower and its equity interest in such company increased to 52.0%.

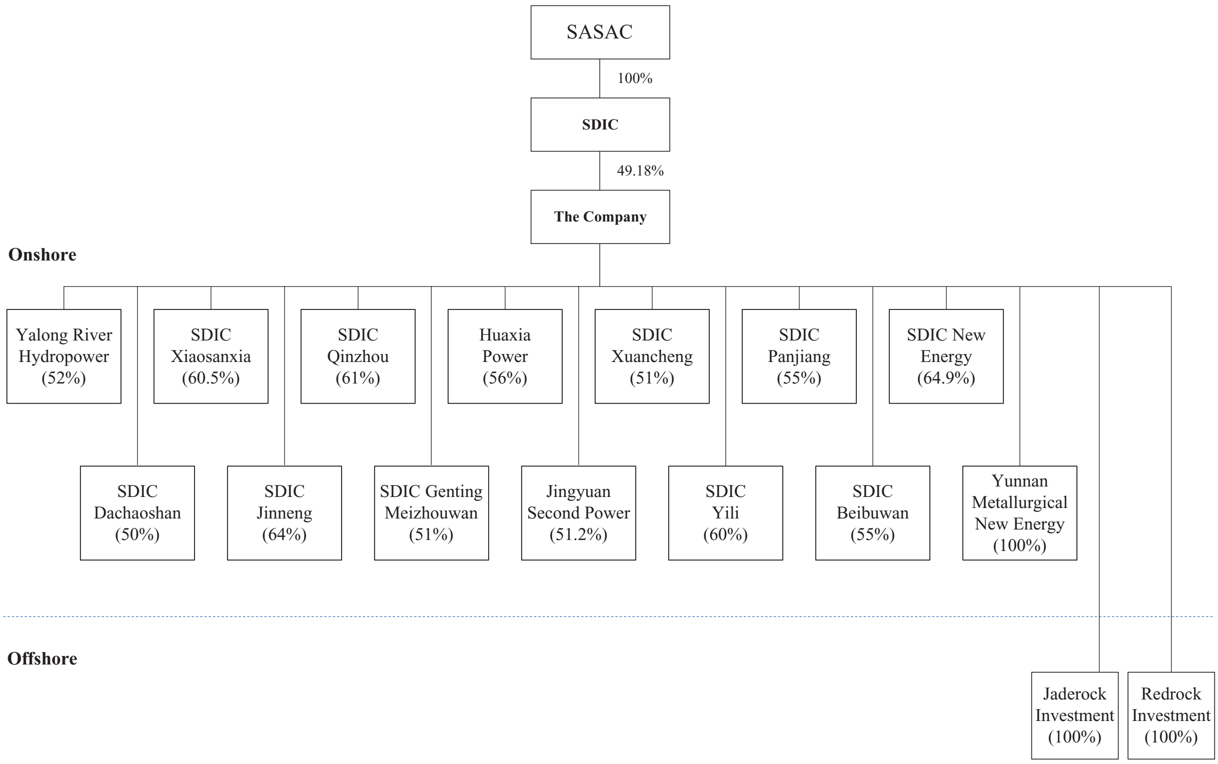
2014 • The last generating unit of Jinping II Hydropower Project was completed, which marks the full commercial operation of the Group's Jin-Guan Hydropower Project Group, with an installed capacity of 10.8 GW.

2016 • The Company invested in Banten Coal-fired Power Plant Project in Indonesia and acquired a 100.0% equity interest in Red Rock Power Limited in the UK, which owns a 100.0% equity interest in Inch Cape Offshore Wind Power Project and a 25.0% equity interest in Beatrice Offshore Wind Power Project. This is the first initiative of the Group's "go global" strategy.

2018 • The Company acquired a 100.0% equity interest in Afton Onshore Wind Power Project located in the UK, which commenced operation in September 2018. The Company acquired a 100.0% equity interest in Nanzhuang Solar Power Project which is a solar power project with an installed capacity of 300.0 MW.

ORGANISATIONAL STRUCTURE

The following chart illustrates the simplified organisational structure of the Company and its major subsidiaries as at the Latest Practicable Date:



For details of the Group's principal subsidiaries, see "*General Information—11. Subsidiaries*".

COMPETITIVE STRENGTHS

Rare and premium hydropower resources with vast potential for growth

The Group's hydropower projects are predominantly located along the Yalong River, the Lantsang River and the Yellow River. These rivers are rich in hydrological resources and are suitable for developing cascade hydropower projects. Hydropower projects along the Yalong River are the core hydropower assets of the Group. With an exploitable capacity of over 30.0 GW, the Yalong River is the third largest hydropower base among China's 13 largest hydropower bases. Around half of the river's runoff comes from ample and steady annual discharge from underground water and meltwater, which results in low seasonal and annual variance in flow. The Group's Jinping I and Jinping II hydropower projects are among the ten largest hydropower projects in China. The Group's principal subsidiary, Yalong River Hydropower, has the exclusive right to develop hydropower resources of the Yalong River, which is the only instance where a power generation company has exclusive right to develop hydropower resources of a major hydropower base in China.

The Group strategically scheduled the construction of large-scale hydropower projects on the river, leveraging the scale of its hydraulics resources. As at 30 June 2019, the Group has five large-scale hydropower projects in operation on the lower reach of the Yalong River, totalling 14.7 GW in consolidated installed capacity, which have over 70 TWh of annual power generation for the past three years. The Group plans to develop seven hydropower projects on the middle reach of the Yalong River, with a total designed capacity of 11.8 GW and designed power output of approximately 49.7 TWh per year.

In addition, the Group's Dachaoshan Hydropower Project, with a total of 1,350.0 MW installed capacity, is located on the middle reach of the Lantsang River, and Daxia, Xiaoxia and Wujinxia (also known as Xiaosanxia) hydropower projects are located on the upper reach of the Yellow River, with an installed capacity of 709.5 MW. Both areas are among China's 13 largest hydropower bases, characterised by abundant and stable water resources.

Outstanding hydropower profitability due to sound coordination and regulating capability of hydropower projects

The "unit gross profit" (gross profit divided by hydro installed capacity) of the Group's hydropower business in 2018 was RMB819,600 per MW, which was the highest among all A-share listed power generation companies with hydropower installed capacity at the GW level in the same year, according to Frost & Sullivan.

The Group has the unique advantage of operating a multilevel cascade hydropower system consisting of five large-scale hydropower projects in operation and two under construction along the Yalong River. The combination of cascade hydropower projects and large regulating reservoirs optimises hydropower resource allocation, mitigates adverse hydrological conditions and maximises hydropower generation efficiency, which lead to higher and more stable hydropower generation. The Group's Lianghekou Hydropower Project (under construction), Jinping I Hydropower Project and Ertan Hydropower Project are equipped with large-scale regulating reservoirs. In particular, Jinping I Hydropower Project's arch dam is 305 metres in height, which is the world's highest double-curvature arch dam, according to Frost & Sullivan. These large regulating reservoirs can increase water storage during the wet season, and increase the water flow for downstream hydropower projects during the dry season, thus significantly increasing their power generation and enabling the Company to enjoy a tariff premium. When Lianghekou Hydropower Project commences operation, it is targeted to increase the theoretical multi-year average annual electricity generation of the Group's hydropower projects by over 10 TWh.

Industry-leading hydropower utilisation hours

Due to the preferential offtake arrangements and designated power transmission lines, together with the Group's premium hydropower resources and sound water regulating capability, the Group's average utilisation hours of hydropower projects in 2016, 2017 and 2018 was 4,822 hours, 4,965 hours and 5,048 hours, respectively, far greater than the average national hydropower utilisation hours of 3,619 hours, 3,597 hours and 3,607 hours in the same periods, respectively.

The PRC government has committed to supporting the development of clean energy, in particular, prioritising hydropower, wind power and solar power generation. The Group's hydropower projects have benefited, and will continue to benefit from preferential offtake arrangements and designated power transmission lines. In 2018, the amount of hydropower generated under preferential offtake arrangements under the clean energy policy accounted for more than 90.0% of the hydropower generated by the Group. In particular, most of the power generation from the Group's Jinping I, II and Guandi hydropower projects is transmitted to one of the most developed provinces in China through the designated ultra-high-voltage power transmission lines built under the state's "West-to-East" electricity transmission project. Moreover, Dachaoshan Power Project in Yunnan province and Xiaosanxia Power Project in Gansu province enjoy preferential offtake arrangements as well.

Efficient and clean coal-fired power assets

In addition to the premium hydropower assets, the Group has been actively optimising its coal-fired power project portfolio and investing in equipment and technology upgrades. The Group's coal-fired power projects focus on large-capacity, energy-saving power generating units, and operate in an efficient and environmentally friendly manner. As at 30 June 2019, the Group's coal-fired installed capacity reached 15,756.0 MW, consisting of units with single installed capacity of at least 300.0 MW. The Group has eight units at the GW level, representing 50.8% of total installed capacity of coal-fired power, substantially higher than other A-share listed coal-fired power companies with a coal-fired installed capacity of over 5.0 GW. In addition, the Group has nine ultra-supercritical coal-fired power generating units and three supercritical coal-fired power generating units, with a total installed capacity of 10,550.0 MW. The operation of a large number of advanced coal-fired units is conducive to reducing coal consumption for power generation. Moreover, all of the coal-fired power generating units operated by the Group have desulphurisation, dedust and denitrification equipment. Over 90% of the Group's coal-fired power units in terms of installed capacity have achieved ultra-low emission levels. For example, Beijiang Coal-fired Power Project has four 1.0 GW ultra-supercritical power generating units and achieved a net standard coal consumption rate of 281.5g/kWh for the six months ended 30 June 2019, as compared to the national average rate for coal-fired power plants of 308.0g/kWh.

Successfully acquiring, developing and operating high-quality overseas power generation assets

The Group has built a diversified portfolio of high-quality power generating assets in Europe and Asia. By acquiring three wind power projects in the UK, the Group has entered into the European renewable energy market. The Group is an industry leader in exploring international opportunities relating to wind power projects. In 2016, the Group acquired a 100.0% equity interest in Red Rock Power Limited, through which it owned a 25.0% equity interest in Beatrice Offshore Wind Power Project and a 100.0% equity interest in Inch Cape Offshore Wind Power Project. The Beatrice project is expected to have an installed capacity of 588.0 MW and will commence full commercial operation in the second half of 2019, with a 15-year fixed tariff of GBP140/MWh (set in 2012 and adjusted for Consumer Price Index), which is higher than the local wholesale electricity price. In 2018, the Group acquired the Afton Onshore Wind Power Project, which enjoys a 19-year ROC (Renewables Obligation Certificate) subsidy from the date of commercial operation. The Group has accumulated extensive experience in developing and managing offshore and onshore wind power projects through these acquisitions, which enables the Group to access best-in-class international operation models and advanced technology to further explore renewable energy business opportunities globally.

In addition, the Group acquired a 40.0% equity interest in the Banten Coal-fired Power Project in 2016. The project is located at the power load centre of Indonesia and is one of the major power plants for the Jawa-Bali grid. The project has entered into a 25-year PPA with a state-owned power grid company in Indonesia which provides a stable income. The Group has years of experience in developing, operating and managing coal-fired power projects in China and is well positioned to apply the experience to enhance the efficiency of the invested project.

Visionary and experienced management team supported by highly skilled employees

The Group is led by a management team consisting of highly qualified experts with in-depth knowledge and expertise in the power industry. Having deep insights and a comprehensive understanding of the development and future trends of the power industry, the management team has successfully steered the Group in growing from a coal-fired power focused company to a leading diversified power generation company in China with a focus on hydropower. In addition, the Group was among the first batch of state-owned enterprises in China to recruit executives. The Group's senior management members have an average industry experience of 20 years and have been with the Group for an average of 14 years.

The management team is supported by professional technicians with extensive experience in developing and operating power projects. In particular, they managed to successfully complete the construction of the Ertan Hydropower Project and Jin-guan Hydropower Project Group, and enhanced the Group's brand awareness globally. As at 30 June 2019, the Group has 9,391 employees, 73.5% of whom have a college degree or above. The Group provides employees with professional on-the-job training to ensure that they continue to stay abreast of the latest developments in the power industry.

BUSINESS STRATEGIES

The Group is committed to strengthening its position as a leading diversified power generation company in China and increasing its international presence through the following strategies:

Continue to strengthen hydropower business

The Group will continue to strengthen its leading position in China's hydropower industry by developing more hydropower projects in the upper and middle reaches of the Yalong River. The Group plans to strategically construct large-scale hydropower projects in phases along the river, leveraging the cascade hydropower resources. The Group's hydropower pipeline includes seven hydropower projects on the middle reach of the Yalong River, totalling 11.8 GW in capacity and 49.7 TWh in designed annual output. Of these projects, two, with a combined installed capacity of 4.5 GW, are currently under development, which are expected to commence operation in phases between 2021 and 2023. When the seven planned hydropower projects in the middle reach commence operation, the Group is expected to have a hydro installed capacity of 28.6 GW and an annual output of approximately 130 TWh. The Group is carrying out feasibility studies over potential hydropower projects on the upper reach of the Yalong River.

Additionally, the Group intends to increase operation efficiency and lower development and maintenance costs with the help of a skilled technical team. The Group also plans to identify quality acquisition targets of hydropower projects and to explore hydropower opportunities both in China and overseas. Leveraging the Group's strong capabilities from developing and operating large scale and complex hydropower projects in the past, the Group is well positioned to capture future hydropower opportunities and command greater market share.

Strategically expand international footprint

The Group intends to gradually conduct international business and further expand its international footprint, with a focus on renewable energy projects in developed countries and diversified energy projects in developing countries, thereby expanding its overseas asset portfolio. In particular, the Group plans to actively develop its offshore and onshore wind power projects in the UK and European markets, and also to seek potential investment opportunities in renewable energy projects, including solar power, waste-to-energy and energy storage projects through Red Rock Power, its European development platform.

The Group will also explore investment opportunities in diversified energy projects in Southeast Asia. By exploiting its proven operational and management model, the Group believes it can enhance the efficiency of invested projects to increase investment returns.

Further expand wind and solar power generating assets

The Group intends to increase investment in renewable energy assets, particularly wind power and solar power. With strong PRC government support for wind and solar power development, the Group plans to continue to develop greenfield wind and solar power projects. To maximise returns, the Group plans to develop new projects in areas with rich and favourable weather resources, and select projects with close proximity to electricity end-users, and higher on-grid tariff and transmission capacity. The Group also intents to selectively acquire wind power and solar power projects, focusing on both increasing its scale and meeting its investment return expectation.

Continue to optimise coal-fired power asset structure

The Group will continue to improve the efficiency and cleanliness of its coal-fired power projects. Specifically, it plans to optimise its coal-fired power asset structure by increasing the proportion of large capacity power generating units, and accelerate the upgrading to improve energy efficiency and reduce emissions. In addition, the Group intends to further optimise its operations to enhance efficiency and the financial performance of its coal-fired power projects.

Establish a diversified and emerging industry value chain

The Group is also actively developing waste-to-energy business. The Group recently acquired two waste-to-energy projects in Guizhou province, China and Bangkok, Thailand, and it intends to further explore acquisition opportunities to expand its waste-to-energy business in the future. The Group is also exploring opportunities to develop solar thermal power projects.

In addition, the Group intends to explore opportunities for growth across the industry value chain and to pursue vertical integration by expanding into incremental distribution network business and electricity sales business. The Group has invested in incremental distribution network projects, and has also established several electricity sales companies in Gansu, Guizhou, Anhui provinces and Guangxi autonomous region to explore the opportunities brought about by electricity pricing marketisation.

BUSINESS SEGMENTS

The Group is primarily engaged in the power generation business and has diversified power projects across hydropower, coal-fired power, and wind and solar power.

The following table sets forth a breakdown of the Group's revenue by business segment for the periods indicated:

	Year ended 31 December						Six months ended 30 June			
	2016		2017		2018		2018		2019	
	Revenue (RMB in millions)	%	Revenue (RMB in millions)	%	Revenue (RMB in millions)	%	Revenue (RMB in millions)	%	Revenue (RMB in millions)	%
By segment										
Hydropower	17,925.6	61.2	17,743.1	56.1	19,660.9	47.9	8,081.1	45.4	8,247.6	42.1
Coal-fired power	10,485.6	35.8	12,666.0	40.0	19,523.2	47.6	8,765.2	49.3	10,125.7	51.6
Wind and solar power	501.8	1.7	749.2	2.4	1,180.8	2.9	663.7	3.7	853.1	4.4
Others(1)	357.8	1.2	484.8	1.5	646.5	1.6	276.5	1.6	383.1	1.9
Total	**29,270.8**	**100.0**	**31,643.1**	**100.0**	**41,011.4**	**100.0**	**17,786.5**	**100.0**	**19,609.5**	**100.0**

(1) The Group is also engaged in other businesses, such as heat supply, seawater desalination and sales of building materials.

The Group develops, acquires and operates hydropower, coal-fired power, and wind and solar power projects in China and the UK, and sells the electricity generated by them to grid companies.

The following table sets forth a breakdown of the consolidated installed capacity by power source as at the dates indicated:

	As at 31 December						As at 30 June			
	2016		2017		2018		2018		2019	
	Consolidated installed capacity (MW)	%	Consolidated installed capacity (MW)	%	Consolidated installed capacity (MW)	%	Consolidated installed capacity (MW)	%	Consolidated installed capacity (MW)	%
Hydropower	16,720.0	57.1	16,720.0	52.9	16,720.0	49.1	16,720.0	49.7	16,763.5	48.8
Coal-fired power	11,756.0	40.1	13,756.0	43.5	15,756.0	46.3	15,756.0	46.8	15,756.0	45.8
Wind and solar power	808.5	2.8	1,144.0	3.6	1,579.0	4.6	1,184.0	3.5	1,848.0	5.4
Total	**29,284.5**	**100.0**	**31,620.0**	**100.0**	**34,055.0**	**100.0**	**33,660.0**	**100.0**	**34,367.5**	**100.0**

The following table sets forth a breakdown of the Group's net power generation by power source for the periods indicated:

	Year ended 31 December						Six months ended 30 June			
	2016		2017		2018		2018		2019	
	Annual power generation (GWh)	%	Annual power generation (GWh)	%	Annual power generation (GWh)	%	Power generation (GWh)	%	Power generation (GWh)	%
Hydropower	80,033.0	68.2	82,565.7	65.8	83,944.4	57.0	34,401.6	54.5	36,966.0	52.6
Coal-fired power	36,233.8	30.9	41,259.0	32.9	60,799.6	41.3	27,594.9	43.7	31,596.7	44.9
Wind and solar power	1,035.0	0.9	1,706.7	1.4	2,460.0	1.7	1,124.5	1.8	1,749.5	2.5
Total	**117,301.8**	**100.0**	**125,531.4**	**100.0**	**147,204.0**	**100.0**	**63,121.0**	**100.0**	**70,312.2**	**100.0**

The following table sets forth a breakdown of the Group's average utilisation hours of its power generating assets in China by power source for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
	Average utilisation hours	Average utilisation hours	Average utilisation hours	Average utilisation hours	Average utilisation hours
Hydropower	4,822	4,965	5,048	2,069	2,220
Coal-fired power	3,701	3,543	4,367	2,117	2,133
Wind and solar power	1,402	1,720	1,855(1)	1,002	1,077(1)

(1) Excluding Afton Wind Power Project

The diagram below illustrates the geographic coverage of the Group's power generating assets in China as at 30 June 2019:

Hydropower Business

China has abundant hydropower resources and the PRC hydropower industry has benefited from strong policy support through favourable clean energy laws and regulations. See "*Regulation—PRC Laws and Regulations Relating to the Power Industry—Renewable Energy*". The Group's hydropower projects are primarily located on the Yalong River, Lantsang River and Yellow River. As at 30 June 2019, the Group controlled ten hydropower projects in operation with a consolidated installed capacity of 16,763.5 MW, representing 48.8% of the Group's consolidated installed capacity. As at the same date, the Group also had two hydropower projects under construction with an expected additional installed capacity of 4,500.0 MW, and five pipeline hydropower projects with an expected additional installed capacity of 7,345.0 MW, all on the Yalong River.

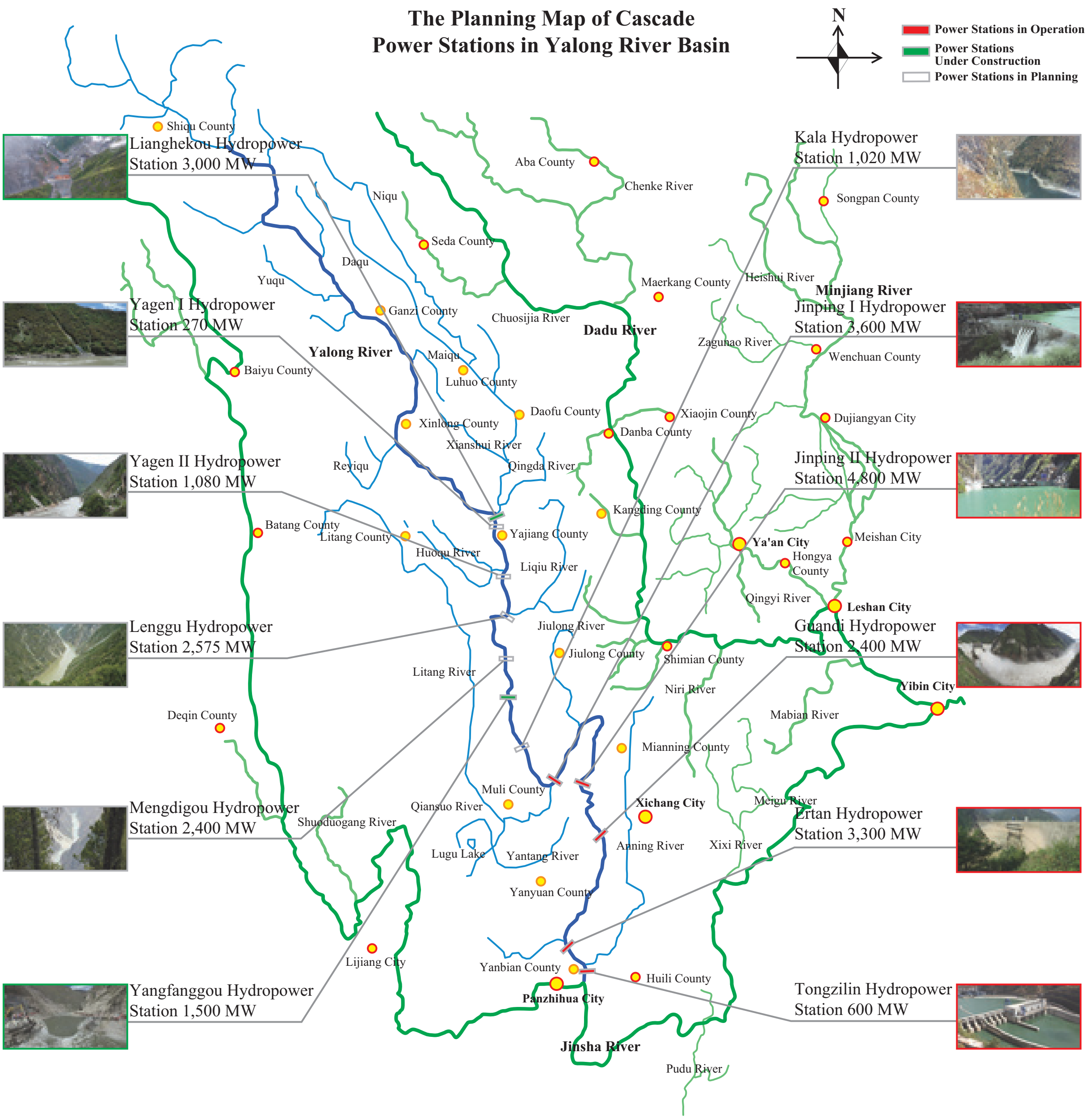
The following table sets forth the key operating data of the Group's hydropower business as at the dates or for the periods indicated:

	As at or for the year ended 31 December			As at or for the six months ended 30 June	
	2016	2017	2018	2018	2019
Consolidated installed capacity (MW)	16,720.0	16,720.0	16,720.0	16,720.0	16,763.5
Attributable installed capacity (MW)	8,724.0	8,724.0	8,724.0	8,724.0	8,742.4
Average utilisation hours	4,822	4,965	5,048	2,069	2,220

Hydropower projects along the Yalong River

Most of the Group's hydropower projects are strategically located along the Yalong River. According to the Response on the Entity Responsible for the Progressive Development of Yalong River Hydropower (《关于雅砻江水能资源滚动开发主体的复函》) issued by the NDRC in 2003, NDRC designated Yalong River Hydropower, a company in which the Company holds a 52.0% equity interest, to be the single entity exclusively responsible for the development of hydropower projects on the Yalong River. Yalong River Hydropower is the only company in China that is exclusively responsible for developing the hydropower of a major hydropower base. The main stream of the Yalong River is 1,571 km long. It covers a catchment area of 136,000 square kilometres, creates a natural head of 3,830 m, and gives an annual runoff of 60.2 billion m^3. Being the third largest among China's 13 hydropower bases, the Yalong River has an exploitable capacity of over 30.0 GW, of which 14.7 GW has been developed by Yalong River Hydropower through five cascade hydropower projects, representing 87.7% of the Group's consolidated hydropower installed capacity as at 30 June 2019. The Group's Lianghekou Hydropower Project (under construction), Jinping I Hydropower Project and Ertan Hydropower Project are each equipped with a large-scale regulating reservoir namely Lianghekou Reservoir (multi-year regulating), Jinping I Reservoir (annual regulating) and Ertan Reservoir (seasonal regulating), with a regulating storage of 6.6 billion m^3, 4.9 billion m^3 and 3.4 billion m^3, respectively. The three reservoirs' storage can be adjusted according to hydrological conditions to regulate water flow and maximise hydropower generation efficiency.

The following map sets forth an overview of the Group's five operating hydropower projects in the lower reach, two hydropower projects under construction and five pipeline hydropower projects in the middle reach and three corresponding reservoirs, including one under construction, on the Yalong River as at 30 June 2019:



Projects in operation

As at 30 June 2019, the Group had ten hydropower projects in operation, with a consolidated installed capacity of 16,763.5 MW.

The following table sets forth a breakdown of the Group's major hydropower projects in operation by region as at 30 June 2019:

Region/Project name	Consolidated installed capacity	Attributable installed capacity	Ownership	Subsidiary
	(MW)	(MW)	(%)	
Lower Reach of the Yalong River				
Ertan Hydropower Project	3,300.0	1,716.0	52.00	
Tongzilin Hydropower Project	600.0	312.0	52.00	
Jinping I Hydropower Project	3,600.0	1,872.0	52.00	Yalong River Hydropower
Jinping II Hydropower Project	4,800.0	2,496.0	52.00	
Guandi Hydropower Project	2,400.0	1,248.0	52.00	
Sub-total	**14,700.0**	**7,644.0**		
Middle Reach of the Lantsang River				
Dachaoshan Hydropower Project	1,350.0	675.0	50.00	SDIC Dachaoshan
Upper Reach of the Yellow River				
Daxia Hydropower Project	339.5	197.3[(1)]	60.45[(1)]	
Xiaoxia Hydropower Project	230.0	139.0	60.45	SDIC Xiaosanxia
Wujinxia Hydropower Project	140.0	84.6	60.45	
Sub-total	**709.5**	**421.0**		

(1) A 24.5 MW power generating unit was owned by a subsidiary of SDIC Xiaosanxia in which it owns a 46.56% equity interest.

Ertan Hydropower Project

Ertan Hydropower Project is a 3,300.0 MW hydropower station located in Sichuan province, on the lower reach of the Yalong River. Ertan Hydropower Project has six 550.0 MW power generating units and was built with a quarterly regulating reservoir with a regulating storage of 3.4 billion m^3. The project commenced full commercial operation in December 1999 and was the first hydropower project built along the Yalong River. The following table shows its summary operating data for the periods indicated:

Summary Operating Data	Year ended 31 December 2016	2017	2018	Six months ended 30 June 2018	2019
Average installed capacity (MW)	3,300.0	3,300.0	3,300.0	3,300.0	3,300.0
Gross electricity generated (GWh)	15,569.1	14,836.8	15,975.3	7,797.9	7,758.1
Net electricity generated (GWh)	15,496.7	14,769.2	15,907.2	7,765.3	7,722.5
Average utilisation hours	4,718	4,496	4,841	2,363	2,351
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.236	0.243	0.243	0.263	0.248

Tongzilin Hydropower Project

Tongzilin Hydropower Project is a 600.0 MW hydropower station located in Sichuan province, on the lower reach of the Yalong River. Tongzilin Hydropower Project has four 150.0 MW power generating units and the project commenced full commercial operation in March 2016. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	566.5	600.0	600.0	600.0	600.0
Gross electricity generated (GWh)	1,709.2	1,894.7	2,343.5	1,173.3	1,108.8
Net electricity generated (GWh)	1,700.7	1,887.0	2,334.9	1,169.3	1,104.7
Average utilisation hours	3,017	3,158	3,906	1,956	1,848
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.296	0.268	0.250	0.290	0.282

Jinping I Hydropower Project

Jinping I Hydropower Project is a 3,600.0 MW hydropower station located in Sichuan province, on the lower reach of the Yalong River. Jinping I Hydropower Project has six 600.0 MW power generating units and an annual regulating reservoir with a regulating storage of 4.9 billion m^3. Its arch dam, with a height of 305 m, is the world's highest double-curvature arch dam. The project commenced full commercial operation in July 2014. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	3,600.0	3,600.0	3,600.0	3,600.0	3,600.0
Gross electricity generated (GWh)	17,569.4	18,536.1	18,728.5	6,465.1	6,914.0
Net electricity generated (GWh)	17,516.4	18,480.2	18,674.9	6,444.8	6,891.7
Average utilisation hours	4,880	5,149	5,202	1,796	1,921
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.282	0.269	0.288	0.287	0.263

Jinping II Hydropower Project

Jinping II Hydropower Project is a 4,800.0 MW hydropower station located in Sichuan province, on the lower reach of the Yalong River. It is the largest hydropower project in operation along the Yalong River in terms of installed capacity. Jinping II Hydropower Project has eight 600.0 MW power generating units. Its four headrace tunnels, with an average length of 16.67 km and an excavated diameter of 12.41 m to 13.01 m, are among the world's largest hydraulic tunnels. Jinping II Hydropower Project commenced full commercial operation in November 2014. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	4,800.0	4,800.0	4,800.0	4,800.0	4,800.0
Gross electricity generated (GWh)	24,022.3	25,197.0	24,886.6	9,822.4	10,565.1
Net electricity generated (GWh)	23,862.9	25,031.1	24,717.1	9,754.0	10,486.0
Average utilisation hours	5,005	5,249	5,185	2,046	2,201
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.282	0.269	0.288	0.287	0.263

Guandi Hydropower Project

Guandi Hydropower Project is a 2,400.0 MW hydropower station located in Sichuan province, on the lower reach of the Yalong River. Guandi Hydropower Project has four 600.0 MW power generating units and the project commenced full commercial operation in March 2013. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	2,400.0	2,400.0	2,400.0	2,400.0	2,400.0
Gross electricity generated (GWh)	12,121.7	11,935.8	12,179.5	4,646.9	4,712.9
Net electricity generated (GWh)	12,065.1	11,880.9	12,125.2	4,625.3	4,690.9
Average utilisation hours	5,051	4,973	5,075	1,936	1,964
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.282	0.269	0.288	0.287	0.263

Dachaoshan Hydropower Project

Dachaoshan Hydropower Project is a 1,350.0 MW hydropower station located in Yunnan province, on the middle reach of the Lantsang River. Dachaoshan Hydropower Project has six 225.0 MW power generating units and commenced full commercial operation in October 2003. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	1,350.0	1,350.0	1,350.0	1,350.0	1,350.0
Gross electricity generated (GWh)	6,645.7	7,506.1	6,833.1	3,008.1	4,215.7
Net electricity generated (GWh)	6596.9	7448.9	6,780.8	2,984.0	4,186.5
Average utilisation hours	4,923	5,560	5,062	2,228	3,123
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.158	0.133	0.188	0.184	0.217

Daxia Hydropower Project

Daxia Hydropower Project is a 339.5 MW hydropower station located in Gansu province, on the upper reach of the Yellow River. Daxia Hydropower Project has three 75.0 MW power generating units and one 90.0 MW power generating unit, which was upgraded from 75.0 MW in March 2019. The project commenced full commercial operations in June 1998. It acquired an 24.5 MW power generating unit in 2019. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	300.0	300.0	300.0	300.0	325.7
Gross electricity generated (GWh)	1,352.6	1,482.8	1,785.9	810.4	877.7
Net electricity generated (GWh)	1,338.9	1,467.5	1,767.1	802.9	869.2
Average utilisation hours	4,509	4,943	5,953	2,701	2,695
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.288	0.265	0.242	0.286	0.280

Xiaoxia Hydropower Project

Xiaoxia Hydropower Project is a 230.0 MW hydropower station located in Gansu province, on the upper reach of the Yellow River. Xiaoxia Hydropower Project has four 57.5 MW power generating units and the project commenced full commercial operation in May 2005. The following table shows its summary operating data for the periods indicated:

Summary Operating Data	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
Average installed capacity (MW)	230.0	230.0	230.0	230.0	230.0
Gross electricity generated (GWh)	919.9	1,021.9	1,178.1	548.8	654.4
Net electricity generated (GWh)	910.2	1,011.2	1,166.3	543.5	648.5
Average utilisation hours	4,000	4,443	5,122	2,386	2,845
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.293	0.283	0.262	0.299	0.280

Wujinxia Hydropower Project

Wujinxia Hydropower Project is a 140.0 MW hydropower station located in Gansu province, on the upper reach of the Yellow River. Wujinxia Hydropower Project has four 35.0 MW power generating units and the project commenced full commercial operation in July 2009. The following table shows its summary operating data for the periods indicated:

Summary Operating Data	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
Average installed capacity (MW)	140.0	140.0	140.0	140.0	140.0
Gross electricity generated (GWh)	559.3	604.9	484.3	320.3	363.9
Net electricity generated (GWh)	545.2	589.8	471.0	312.5	356.1
Average utilisation hours	3,995	4,321	3,460	2,288	2,599
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.232	0.224	0.216	0.220	0.223

Projects under Construction

As at 30 June 2019, the Group had two hydropower projects under construction with an expected installed capacity of 4,500.0 MW. The following table sets forth a breakdown of the Group's hydropower projects under construction as at 30 June 2019:

Region/Project name	Capacity under construction	Ownership	Estimated year of commencement of operation
	(MW)	(%)	
Yalong River Area			
Lianghekou Hydropower Project	3,000.0	52.00	2021-2023
Yangfanggou Hydropower Project	1,500.0	52.00	2021-2022
Total	**4,500.0**		

Lianghekou Hydropower Project

Lianghekou Hydropower Project is a hydropower station owned by Yalong River Hydropower, with a capacity under construction of 3,000.0 MW, and a designed annual gross generation of 11,000.0 GWh. The project is located in Sichuan province, on the middle reach of the Yalong River. It is designed to install six 500.0 MW power generating units and features the largest installed capacity on the middle reach of the Yalong River. The project is equipped with the Lianghekou Reservoir, a multi-year regulating reservoir with a total regulating storage of 6.6 billion m^3. It will be able to regulate water flow by adjusting the reservoir's storage according to hydrological conditions and to maximise hydropower generation of its downstream cascade hydropower stations. Lianghekou Hydropower Project commenced construction in November 2015 and is expected to commence operation in phases between 2021 and 2023. After the commencement of commercial operation of Lianghekou Hydropower Project, it is targeted to increase the theoretical multi-year average annual power generation of downstream hydropower projects by over 10 TWh.

Yangfanggou Hydropower Project

Yangfanggou Hydropower Project is a hydropower station owned by Yalong River Hydropower, with a capacity under construction of 1,500.0 MW, and a designed annual gross generation of 5,962.3 GWh. The project is located in Sichuan province, on the middle reach of Yalong River. It is designed with four 375.0 MW power generating units. This project commenced construction in June 2015 and is expected to commence operation in phases between 2021 to 2022.

Pipeline projects

The Group refers to its hydropower projects reserved for future development as “pipeline projects”. As at 30 June 2019, the Group had five pipeline projects in evaluation and planning stages, namely Yagen I Hydropower Project, Yagen II Hydropower Project, Lenggu Hydropower Project, Mengdigou Hydropower Project, and Kala Hydropower Project, with an expected installed capacity of 7,345.0 MW and designed annual output of 32.7 TWh. The planned locations of these pipeline projects are on the middle reach of the Yalong River. The actual time and future funding needs for the development and construction of these pipeline projects vary depending on a number of factors, including the time it takes for governments to issue approvals, transmission capacity of the local grids and inter-provincial, high-voltage transmission lines and on-grid tariff. For details of the Group’s identification and assessment of pipeline projects, see “*—Development and Maintenance of Power Plants—Opportunity Identification and Feasibility Study*”.

Coal-fired Power Business

As at 30 June 2019, the Group had nine coal-fired power plants in operation, with a consolidated installed capacity of 15,756.0 MW, representing 45.8% of the Group’s consolidated installed capacity. The Group has been actively optimising its coal-fired power asset structure by focusing on large capacity and energy saving power units and investing in equipment and technology upgrades. As at 30 June 2019, all of the Group’s coal-fired power generating units had capacities greater than or equal to 300.0 MW, and eight of them were at the GW level, representing 50.8% of the Group’s consolidated coal-fired power installed capacity. The Group has nine ultra-supercritical power generating units with a total installed capacity of 8,660.0 MW, representing 55.0% of the Group’s consolidated installed capacity of its coal-fired power projects. All of the coal-fired power generating units operated by the Group are equipped with desulphurisation, dedust and denitrification equipment. The Group is also carrying out ultra-low emission retrofits of its coal-fired power generating units on a large scale. Over 90% of the Group’s coal-fired power units in terms of installed capacity achieved ultra-low emission level.

The following table sets forth the key operating data of the Group's coal-fired power business as at the dates or for the periods indicated:

	As at or for the year ended 31 December			As at or for the six months ended 30 June	
	2016	2017	2018	2018	2019
Consolidated installed capacity (MW)	11,756.0	13,756.0	15,756.0	15,756.0	15,756.0
Attributable installed capacity (MW)	6,753.5	7,773.5	9,053.5	9,053.5	9,053.5
Average utilisation hours	3,701	3,543	4,367	2,117	2,133

Coal-fired power project portfolio

The following table sets forth a breakdown of the Group's coal-fired power projects in operation by region as at 30 June 2019:

Region/Project name	Consolidated installed capacity	Attributable installed capacity	Ownership	Operating subsidiary
	(MW)	(MW)	(%)	
Tianjin				
Beijiang Coal-fired Power Project	4,000.0	2,560.0	64.00	SDIC Jinneng
Anhui province				
Xuancheng Coal-fired Power Project	1,290.0	657.9	51.00	SDIC Xuancheng
Fujian province				
Meizhouwan I Coal-fired Power Project	786.0	400.9	51.00	SDIC Genting Meizhouwan
Meizhouwan II Coal-fired Power Project	2,000.0	1020.0	51.00	
Huaxia Coal-fired Power Project	1,200.0	672.0	56.00	Huaxia Power
Sub-total	***3,986.0***	***2,092.9***		
Gansu province				
Jingyuan Coal-fired Power Project	1,320.0	676.1	51.22	Jingyuan Second Power
Xinjiang autonomous region				
Yili Coal-fired Power Project	660.0	396.0	60.00	SDIC Yili
Guangxi autonomous region				
Beibuwan Coal-fired Power Project	640.0	352.0	55.00	SDIC Beibuwan
Qinzhou Coal-fired Power Project	3,260.0	1,988.6	61.00	SDIC Qinzhou
Sub-total	***3,900.0***	***2,340.6***		
Guizhou province				
Panjiang Coal-fired Power Project	600.0	330.0	55.00	SDIC Panjiang
Total	**15,756.0**	**9,053.5**		

Beijiang Coal-fired Power Project

Beijiang Coal-fired Power Project is a 4,000.0 MW coal-fired power plant located in Tianjin. The project has four 1.0 GW ultra-supercritical power generating units. The project commenced full commercial operation in June 2018. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	2,000.0	2,000.0	3,074.0	2,132.6	4,000.0
Gross electricity generated (GWh)	9,722.9	9,967.0	15,599.2	5,400.5	8,723.3
Net electricity generated (GWh)	9,172.0	9,380.3	14,725.0	5,074.1	8,244.4
Average utilisation hours	4,861	4,983	5,075	2,532	2,181
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.368	0.371	0.380	0.389	0.379

Xuancheng Coal-fired Power Project

Xuancheng Coal-fired Power Project is a 1,290.0 MW coal-fired power plant located in Anhui province. The project has one 630.0 MW supercritical power generating unit and one 660.0 MW ultra-supercritical power generating unit. The project commenced full commercial operation in July 2015. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	1,290.0	1,290.0	1,290.0	1,290.0	1,290.0
Gross electricity generated (GWh)	5,651.8	5,909.3	5,755.9	2,952.1	3,197.1
Net electricity generated (GWh)	5,383.4	5,618.6	5,469.2	2,807.2	3,036.2
Average utilisation hours	4,381	4,581	4,462	2,288	2,478
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.362	0.373	0.390	0.396	0.384

Meizhouwan I Coal-fired Power Project

Meizhouwan I Coal-fired Power Project is a 786.0 MW coal-fired power plant located in Fujian province. The project has two 393.0 MW power generating units. The project commenced full commercial operations in March 2001. The project is operated under the "Build-Operate-Transfer" mode. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	786.0	786.0	786.0	786.0	786.0
Gross electricity generated (GWh)	3,462.6	3,261.7	2,682.4	1,120.7	920.6
Net electricity generated (GWh)	3,184.7	2,995.0	2,462.9	1,032.4	850.0
Average utilisation hours	4,405	4,150	3,413	1,426	1,171
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.425	0.387	0.389	0.383	0.397

Meizhouwan II Coal-fired Power Project

Meizhouwan II Coal-fired Power Project is a 2,000.0 MW coal-fired power plant located in Fujian province. The project has two 1,000.0 MW ultra-supercritical power generating units, which commenced full commercial operation in September 2017, respectively. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	N/A	712.7	2,000.0	2,000.0	2,000.0
Gross electricity generated (GWh)	N/A	2,853.2	10,510.6	4,969.8	4,931.3
Net electricity generated (GWh)	N/A	2,716.0	10,014.0	4,742.0	4,702.5
Average utilisation hours	N/A	4,004	5,255	2,485	2,466
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	N/A	0.352	0.375	0.388	0.375

Huaxia Coal-fired Power Project

Huaxia Coal-fired Power Project is a 1,200.0 MW coal-fired power plant located in Fujian province. The project has four 300.0 MW power generating units. The project commenced full commercial operation in July 2006. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	1,200.0	1,200.0	1,200.0	1,200.0	1,200.0
Gross electricity generated (GWh)	3,341.5	4,600.9	5,486.0	2,830.6	2,466.9
Net electricity generated (GWh)	3,123.8	4,335.6	5177.2	2,676.2	2,327.5
Average utilisation hours	2,785	3,834	4,572	2,359	2,056
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.357	0.376	0.394	0.407	0.383

Jingyuan Coal-fired Power Project

Jingyuan Coal-fired Power Project is a 1,320.0 MW coal-fired power plant located in Gansu province. The project has four 330.0 MW power generating units. The project commenced full commercial operation in January 2007. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	1,320.0	1,320.0	1,320.0	1,320.0	1,320.0
Gross electricity generated (GWh)	5,404.2	2,507.7	3,510.6	1,564.5	2,080.0
Net electricity generated (GWh)	5,014.6	2,311.0	3,238.9	1,437.5	1,926.8
Average utilisation hours	4,094	1,900(1)	2,660	1,185	1,576
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.178	0.239	0.307	0.286	0.289

(1) The decrease in average utilisation hours in 2017 was attributable to low demand for power and an increase in the proportion of clean power consumption in Gansu province that year.

Yili Coal-fired Power Project

Yili Coal-fired Power Project is a 660.0 MW coal-fired power plant located in Yining, Xinjiang autonomous region. The project has two 330.0 MW power generating units. The project commenced full commercial operation in January 2013. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	660.0	660.0	660.0	660.0	660.0
Gross electricity generated (GWh)	2,183.8	2,702.6	2,642.5	1,383.7	1,374.9
Net electricity generated (GWh)	1,959.0	2,425.5	2,368.1	1,238.6	1,229.9
Average utilisation hours	3,309	4,095	4,004	2,097	2,083
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.227	0.211	0.210	0.204	0.199

Beibuwan Coal-fired Power Project

Beibuwan Coal-fired Power Project is a 640.0 MW coal-fired power plant and is located in Guangxi autonomous region. The project has two 320.0 MW power generating units. The project commenced full commercial operation in March 2005. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	640.0	640.0	640.0	640.0	640.0
Gross electricity generated (GWh)	1,952.4	2,892.0	3,907.6	2,020.7	1,892.6
Net electricity generated (GWh)	1,797.5	2,670.2	3,638.7	1,887.4	1,762.6
Average utilisation hours	3,051	4,519	6,106	3,157	2,957
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.415	0.384	0.351	0.377	0.374

Qinzhou Coal-fired Power Project

Qinzhou Coal-fired Power Project is a 3,260.0 MW coal-fired power plant located in Guangxi autonomous region. The project has two 630.0 MW power generating units and two 1,000.0 MW ultra-supercritical power generating units. The project commenced full commercial operation in September 2016. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	2,017.1	3,260.0	3,260.0	3,260.0	3,260.0
Gross electricity generated (GWh)	4,752.8	6,711.3	11,703.1	5,716.4	6,530.7
Net electricity generated (GWh)	4,363.9	6,264.6	10,998.5	5,374.9	6,141.2
Average utilisation hours	2,356	2,059	3,590	1,754	2,003
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.375	0.403	0.387	0.405	0.376

Panjiang Coal-fired Power Project

Panjiang Coal-fired Power Project is a 600.0 MW coal-fired power plant located in Guizhou province. The project has two 300.0 MW power generating units. The project commenced full commercial operation in December 2014. The following table shows its summary operating data for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
Summary Operating Data	**2016**	**2017**	**2018**	**2018**	**2019**
Average installed capacity (MW)	600.0	600.0	600.0	600.0	600.0
Gross electricity generated (GWh)	2,432.5	2,774.5	2,957.3	1,446.8	1496.1
Net electricity generated (GWh)	2,235.4	2,541.9	2,707.4	1,324.5	1375.7
Average utilisation hours	4,054	4,624	4,929	2,411	2,494
Average on-grid tariff (inclusive of VAT) (RMB/kWh)	0.334	0.319	0.340	0.338	0.338

Wind and Solar Power Business

Wind and solar power is a rapidly growing source of energy globally and stands to benefit from strong government support. In 2016, 2017 and 2018, and the six months ended 30 June 2019, the Group's wind and solar power consolidated installed capacity grew rapidly, increasing from 808.5 MW as at 31 December 2016 to 1,579.0 MW as at 31 December 2018, representing a CAGR of 39.7%, and further increased to 1,848.0 MW as at 30 June 2019.

As at 30 June 2019, the Group had 23 wind and solar power projects in operation, including one in the UK, with a consolidated installed capacity of 1,848.0 MW, representing 5.4% of the Group's consolidated installed capacity. As at the same date, the Group also had three wind power projects under construction in China with an expected installed capacity of 350.0 MW, and five pipeline wind and solar power projects, with an expected installed capacity of 300.0 MW. See "*—Overseas Power Assets*" for details about the Group's overseas wind power projects.

The following table sets forth the key operating data of the Group's wind and solar power business as at the dates or for the periods indicated:

	As at or for the year ended 31 December			As at or for the six months ended 30 June	
	2016	**2017**	**2018**	**2018**	**2019**
Consolidated installed capacity (MW)	808.5	1,144.0	1,579.0	1,184.0	1,848.0
Attributable installed capacity (MW)	489.2	686.4	1,091.5	712.3	1,315.2
Average utilisation hours	1,402	1,720	1,855[(1)]	1,002	1,077[(1)]

(1) Excluding Afton Wind Power Project

Projects in operation

As at 30 June 2019, the Group had 23 wind and solar power projects in operation, with a consolidated installed capacity of 1,848.0 MW. The following table sets forth a breakdown of the Group's wind and solar power projects in operation by region as at 30 June 2019:

Region/Project name	Consolidated installed capacity	Attributable installed capacity	Commencement date of operation	Ownership	Operating subsidiaries
	(MW)	(MW)		(%)	
Yunnan province					
Dongchuan Wind Power Project	48.0	28.0	August 2015	58.4	
Dongchuan II Wind Power Project	48.0	28.0	August 2017	58.4	SDIC Yunnan
Wuding Wind Power Project	48.0	28.0	January 2017	58.4	SDIC Chuxiong
Dali Solar Power Project	40.0	26.0	May 2018	64.9	SDIC Dali
Nanzhuang Solar Power Project	300.0	300.0	July 2018	100.0	Yunnan Metallurgical New Energy
Sub-total	**484.0**	**410.1**			
Gansu province					
Baiyin Wind Power Project	94.5	61.3	December 2012	64.9	SDIC Baiyin
Beidaqiao East Wind Power Project	99.0	41.8	October 2010	42.2	SDIC Jiuquan First
Beidaqiao Second Wind Power Project	201.0	130.4	April 2011	64.9	SDIC Jiuquan Second
Dunhuang Solar Power Project	28.0	18.2	August 2012	64.9	SDIC Dunhuang
Sub-total	**422.5**	**251.7**			
Qinghai province					
Qinghai Wind Power Project	49.5	25.6	December 2013	51.7	SDIC Qinghai
Qinghai II Wind Power Project	49.5	25.6	August 2017	51.7	
Golmud Solar Power Project	50.0	32.4	January 2012	64.9	SDIC Golmud
Sub-total	**149.0**	**83.6**			
Xinjiang autonomous region					
Hami Santang Lake Wind Power Project	49.5	32.1	December 2013	64.9	
Hami Naomao Lake Wind Power Project	49.5	32.1	December 2015	64.9	
Yandun Wind Power Project	200.0	129.8	July 2017	64.9	SDIC Hami
Jingxia Wind Power Project	100.0	64.9	July 2017	64.9	
Turpan Wind Power Project	49.5	32.1	January 2015	64.9	SDIC Turpan
Toksun Solar Power Project	140.0	140.0	May 2019	100.0	Toksun Tianhe
Sub-total	**588.5**	**431.0**			
Guangxi autonomous region					
Longmen Wind Power Project	94.0	61.0	February 2019	64.9	SDIC Guangxi
Ningxia autonomous region					
Shizuishan Solar Power Project	30.0	19.5	July 2012	64.9	SDIC Shizuishan
Sichuan province					
Huili Solar Power Project	20.0	5.3	March 2017	26.5	Yalong River Huili New Energy
Mianning Solar Power Project	10.0	3.1	March 2017	31.2	Yalong River Mianning New Energy
Sub-total	**30.0**	**8.4**			
United Kingdom					
Afton Wind Power	50.0	50.0	September 2018	100.0	Afton Windfarm Ltd.
Total	**1,848.0**	**1,315.2**			

Projects under Construction

As at 30 June 2019, the Group had three wind power projects under construction with a total expected installed capacity of 350.0 MW. The following table sets forth a breakdown of the Group's wind and solar power projects under construction by region as at 30 June 2019:

Region/Project name	Capacity under construction	Ownership	Estimated commencement month of operation
	(MW)	(%)	
Xinjiang autonomous region			
Jingxia 5A Wind Power Project	200.0	64.9	September 2019
Jingxia 5B Wind Power Project	100.0	64.9	December 2020
Sub-total	**300.0**		
Ningxia autonomous region			
Zhongning Enhe Wind Power Project	50.0	64.9	December 2020
Total	**350.0**		

Pipeline Projects

The Group has a strong project pipeline for future development in China, which the Group believes will provide a solid foundation for future growth. As at 30 June 2019, the Group had obtained approval for construction by provincial NDRC for five wind power and solar power projects, the expected installed capacity of which is approximately 300.0 MW. For details of the Group's identification and assessment of pipeline projects, see "*—Development and Maintenance of Power Plants—Opportunity Identification and Feasibility Study*".

Overseas Power Assets

In line with its "go global" strategy, the Group is also actively expanding in the overseas power generation market. As at 30 June 2019, the Group had one overseas project in operation with installed capacity of 50.0 MW, and one overseas pipeline project, with expected installed capacity of around 700.0 MW. The following map illustrates the distribution of the Group's overseas power projects as at 30 June 2019:

From time to time, the Group acquires interests and makes investments in overseas associates. As at 30 June 2019, the Group held minority equity interests in two projects.

Projects in operation

Afton Onshore Wind Power Project

Afton Onshore Wind Power Project is an onshore wind power project located in Scotland, the UK, with an installed capacity of 50.0 MW. The project commenced operation in September 2018. The project is owned by Afton Windfarm Limited which is 100.0% owned by Red Rock Power Limited. The Company holds a 100.0% equity interest in Red Rock Power Limited through its subsidiary Redrock Investment Limited. The project enjoys a 19-year ROC (Renewables Obligations Certificate) mechanism from the date of commercial operation. The project also signed a 15-year PPA with Neas Energy.

Pipeline projects

Inch Cape Offshore Wind Power Project

Inch Cape Offshore Wind Power Project is an offshore wind power project located in the North Sea, the UK, with an expected installed capacity of around 700.0 MW. The project is wholly owned by Red Rock Power Limited. The project is run by a team of over 40 professionals, and is still in the preparation stage of development.

Interest in associated entities

Beatrice Offshore Wind Power Project

Beatrice Offshore Wind Power Project is an offshore wind power project located on the eastern coast of Scotland, the UK, with an expected installed capacity of 588.0 MW, equipped with 84 sets of 7.0 MW wind turbines. The project is owned by Beatrice Offshore Windfarm Ltd., which is 25.0% owned by Red Rock Power Limited. The project is currently under construction and is expected to commence full commercial operations in second half of 2019. The project secured a 15-year fixed tariff of GBP140/MWh (set in 2012 and adjust for Consumer Price Index), higher than the local wholesale electricity price.

Banten Coal-fired Power Project

Banten Coal-fired Power Project is a 660.0 MW coal-fired power plant located in Banten Province, Indonesia. The project has one 660.0 MW supercritical power generating unit, and it commenced operations in March 2017. The project is owned by PT Lestari Banten Energi, in which Lestari Listrik Pte., Ltd. holds a 95.0% equity interest. The Company holds a 42.1% equity interest in Lestari Listrik Pte. Ltd. through its 100.0% holding company Jaderock Investment Singapore Pte., Ltd. The project is located in the power load centre of Indonesia, and is one of the major power stations of the Jawa-Bali power grid. The project has signed a 25-year PPA with a state-owned grid company in Indonesia. In January 2019, a US$775 senior notes with a 20-year tenor was issued for the project, with annual coupon rate of 6.8757%, to optimise its financing structure.

OTHER BUSINESS

The Group is also engaged in other business, such as heat supply, seawater desalination and sales of construction materials. Some of the Group's generating units are combined cogenerating units whereby the generation of power produces heat and desalinates seawater. Coal-fired power projects generate certain side products, such as fly ash, which are then processed to produce construction materials such as bricks.

Revenue from the Group's other business for 2016, 2017 and 2018 and the six months ended 30 June 2019 amounted to RMB357.8 million, RMB484.8 million, RMB646.5 million and RMB383.1 million, respectively, accounting for 1.2%, 1.5%, 1.6% and 1.9%, respectively, of its total revenue for the same period.

PRICING AND SALES

Pricing

On-grid tariff refers to the wholesale price at which power companies sell the power they generate to grids. On-grid tariffs of the planned output of the Group's power projects are reviewed and determined by the relevant pricing authorities. Apart from the Group's planned output, the Group's power projects also sell electricity generated in excess of the planned output, the price of which is determined by market mechanism.

Hydropower

The relevant pricing authorities primarily use the following three pricing methods to determine the on-grid tariff of the planned output of the Group's hydropower projects: (i) local price backward pricing; (ii) individual project pricing; and (iii) benchmark pricing.

- Hydropower projects whose generated power is subject to inter-provincial transmission are subject to the local price backward pricing method where the NDRC determines the on-grid tariff. Such on-grid tariff is determined with reference to the local market price at the power receiving side, after deducting the transmission price charged by the grid company.
- Certain hydropower projects are subject to the individual project pricing method where the on-grid tariff is determined by the relevant pricing authority on a case-by-case basis. One of the key considerations is the construction and operating costs and the rate of return of the projects.
- Other hydropower projects are usually subject to the benchmark pricing method where the on-grid tariff is calculated based on the average costs of hydropower stations of the same category.

As a result, the on-grid tariff for hydropower plants varies from one hydropower project to another.

Coal-fired power

The on-grid tariffs of the planned output of the Group's coal-fired power projects are determined by factors including, but not limited to, the benchmark price and the price compensation. The benchmark price is announced primarily by the NDRC, in consideration of the average cost of coal-fired power generation, which is affected by various factors, including the average utilisation hours and the depreciation of equipment. The price compensation is provided when certain standards such as denitrification and ultra-low emission are met.

Wind and solar power

The on-grid tariffs of the planned output of the Group's wind and solar power projects in China are determined by governmental authorities based on the actual location of such wind and solar power projects. For wind power projects, the PRC government has categorised the wind resources of the PRC into four wind resource zones and applies a universal on-grid tariff to all the wind power projects in the same wind resource zone approved within the same period. For solar projects, the PRC government has categorised the solar energy resources of the PRC into three zones and applies a universal on-grid tariff to all the solar projects in the same resource zone approved within the same period.

Marketisation of power

Power marketisation is central to recent power industry reform. According to the Certain Opinions of the Communist Party of China Central Committee and the State Council on Further Implementation of System Reform in Electric Power Industry (《中共中央、国务院关于进一步深化电力体制改革的若干意见》), which became effective on 15 March 2015, improving the power bidding mechanism and the price adjustment mechanism for medium- and long- term contract transactions will be the main focus in the marketisation of power. Except for electricity consumption for crucial social functions, the determination of on-grid tariff should gradually become market-based. The Group's power plants also sell electricity generated in excess of planned output. Bilateral trading allows an electricity generation company to directly negotiate with and sell its electricity to large corporate customers. Under the competitive bidding mechanism, grid company organise power generation companies to participate in bidding to sell their output. See "*Industry Overview—China Power Industry—Market policy and regulation—Marketisation trend*" and "*Regulation—PRC Laws and Regulations Relating to the Power Industry—Pricing*". In 2016, 2017 and 2018 and the six months ended 30 June 2019, the determination of on-grid tariffs for 12.5%, 23.1%, 28.8% and 34.5% of the Group's electricity generation were market-based. With the maturity of the market, the proportion of market-oriented transactions in the power generation industry is expected to continue to increase and power prices will follow the market mechanism gradually.

The following table sets forth a breakdown of the pricing by power source for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
	Average on-grid tariff (inclusive of VAT) (RMB/kWh)				
Hydropower	0.262	0.251	0.268	0.272	0.255
Coal-fired Power	0.338	0.357	0.369	0.377	0.364
Wind Power	0.487	0.473	0.479(1)	0.489	0.478(1)
Solar Power	1.047	0.998	0.875	1.003	0.863

(1) Excluding Afton Wind Power Project

ELECTRICITY DISPATCH

All power generation companies and grid companies shall comply with centralised dispatch orders from dispatch centres. Dispatch centres prepare annual, quarterly, monthly, weekly and daily power generation plans, indicating the active power, reactive power and voltage for the day, taking into consideration all relevant factors such as PPA signed, daily power load demand, internal water level, fuel supplies, capacity of power grid equipment and equipment servicing requirements.

A dispatch centre is required to dispatch electricity in accordance with its agreements with power generation companies. Additionally, power generation companies and grid companies enter into grid connection agreements before the power project connects to the grid. As a result, there is competition for favourable output in the PRC power industry. More efficient power projects usually operate at higher output than less efficient power projects. The Group believes that its more abundant and stable water resources, strong regulating capability, centralised coordination capability, advanced equipment, lower coal consumption rates, higher operational efficiency and lower emissions levels are competitive advantages.

DEVELOPMENT AND MAINTENANCE OF POWER PLANTS

The process of identifying potential sites for power plants, obtaining government approvals, completing construction and commencing commercial operations is usually lengthy. However, because of the Group's extensive experience in developing and constructing power plants, the Group has been able to identify potentially profitable power plant projects and to obtain required PRC government approvals for the majority of its projects in a timely manner.

Opportunity Identification and Feasibility Study

The Group initially identifies an area in which additional electric power is needed by determining the difference between the existing installed capacity and the projected demand for electric power in the area. The initial assessment of a proposed power project involves a preliminary feasibility study. The feasibility study examines the proposed power plant's land use requirements, geographic nature, access to the power grid, fuel supply arrangements for coal-fired power projects, hydrological conditions, wind conditions, solar conditions, local requirements for permits and licences and the ability of potential customers to afford the proposed power tariff. To determine projected demand, factors such as economic growth, population growth and industrial expansion are used. To gauge the expected supply of electricity, the capacities of existing plants and plants under construction or development are studied.

Approval

Power plant projects are subject to approval by national or local governmental authorities. See "*Regulation—PRC Laws and Regulations Relating to Project Review and Approval*". The Group adopts various criteria in evaluating new projects. New projects must be in line with national industrial policies, national industrial overall plans, and laws and regulations. In addition, new projects should fit the Group's overall strategies and plans, its resources allocation and its rate of return on investment benchmark.

Permits

In developing a new power plant, the Group and third parties, such as a construction contractor, are required to obtain permits before the commencement of a project. Such permits include operating licences and similar approvals related to plant site, land use, construction and the environment. See "*Regulation—PRC Laws and Regulations Relating to the Power Industry*".

Power Plant Construction

Construction of power plants, equipment procurement and installation, site preparation and civil works are outsourced to third-party contractors through a competitive bidding process. As required by law, the Group engages third-party supervising firms to oversee the construction process and ensure that construction meets all required quality standards. The qualifications and performance of the contractors are reviewed from time to time. The construction contracts typically provide for fixed or capped payments, subject to adjustments for certain types of excess according to the construction agreements.

Operation and Maintenance

The Group's projects have established effective management structures. The Group's hydropower projects and coal-fired power projects in operation are largely managed independently from one another. The Group's wind and solar power projects in operation are usually managed through project companies established specifically for the purpose of building and operating a single project. The Group's senior management communicates with the management of the projects, and conducts regular performance reviews of the managers. At the same time, opportunities to enhance the project's performance and profitability are evaluated regularly.

The Group strives to continuously improve its capabilities of repairs and maintenance, in particular by increasing its operating efficiency, performing repair and maintenance and enhancing equipment monitoring and diagnosis. Repairs and maintenance are conducted on an as-needed basis. For mid-level repairs and maintenance and major overhaul of the Group's hydropower projects and coal-fired power plants, it typically engages third-party repairs and maintenance suppliers. Large scale repairs and maintenance to the Group's hydropower projects are carried out every four to ten years and generally scheduled during the dry season in order to reduce their impact on normal operations. Large scale repairs and maintenance to the Group's coal-fired power projects are carried out every four to six years and generally scheduled during periods with relatively low power generation load. Minor repairs to the hydropower and coal-fired projects are typically carried out on an as-needed basis without interruption to the planned generation of the power project.

Due to their smaller sizes, wind and solar power projects typically have no major overhaul period compared to a hydropower project or a coal-fired power plant and maintenance and repair work on them require relatively less time and, therefore, does not materially interrupt power production.

Upgrades

The Group maintains power projects in accordance with applicable laws and regulations in material aspects. Newly promulgated laws and regulations generally require more stringent standards in respect to equipment and permissible emissions levels of power plants. To comply with such new regulations, the Group upgrades existing power generating units from time to time.

SUPPLIERS AND CUSTOMERS

The Group's coal procurement is mainly based on the medium and long term contracts and supplemented by procurement from the open market. The medium and long term contracts are usually entered into with major coal suppliers in the PRC, including, among others, China Shenhua Energy Company and China National Coal Group Corporation. The Company usually enters into framework purchase agreements with those suppliers, pursuant to which the Group or each project company signs annual purchase agreements based on their power generation plans. The Group also sources its coal from domestic or overseas markets through its centralised e-procurement platform connecting a pool of qualified suppliers.

The medium and long term contract usually has a term of one year, and provides the quantity of coal supply on a monthly or yearly basis. The coal prices are subject to the agreed pricing formula or the coal price index, and the Group makes relevant payment for each supply upon shipment. For 2016, 2017 and 2018, and the six months ended 30 June 2019, the average price of standard coal (7,000 kcal/kg) per ton the Group purchased was RMB452, RMB638, RMB698 and RMB649. The coal supplies are transported to the Group's coal-fired power projects by railway, highway and waterway transportation, depending on the varying locations of projects.

During 2016, 2017 and 2018, and the six months ended 30 June 2019, the Group derived substantially all of its revenue from sales of electricity generated by its power generating projects. The Group's primary customers are grid companies, such as State Grid Corporation of China, China Southern Power Grid Co., Ltd. and their subsidiaries such as Guangxi Power Grid Co., Ltd. and State Grid Fujian Electric Power Co., Ltd.

WEATHER AND SEASONALITY

The power generation business has seasonality. Weather patterns have a substantial impact on the performance and operation of the Group's hydropower and wind and solar power businesses. In addition, the weather also affects the demand for and, in some instances, the on-grid tariffs of, electricity. The Group closely monitors the weather in the regions that affect its power projects and works with weather forecast agencies to ensure that it is prepared for changes in climatic conditions to maximise the Group's power generation efficiency.

Hydropower

Hydrological conditions are subject to seasonal variation. The water flow of the Yalong River, the Lantsang River and the Yellow River varies each year and depends primarily on weather conditions such as precipitation and the snowmelt. Most of the Group's power generation occurs during times of high precipitation and snowmelt, which result in an increase in the water flow, primarily from June to October of each year.

If any of the abovementioned rivers experiences significant flooding, the Group's power generation scheduling becomes crucial for the proper operation of the Group's hydropower projections. The Group has strict water inflow and outflow scheduling processes that generally allow it to manage flooding effectively to utilise the increased water inflow to increase the Group's power generation. If, on the other hand, the relevant rivers experience significant drought or decreases in water flow, the Group's power generation levels tend to decrease. The Group effectively manages periods of drought or significantly decreased water inflow by using large-scale reservoirs with strong regulating capabilities to minimise the negative impact on the Group's power generation.

Wind and solar power

The Group's wind power projects are affected by meteorological conditions and the resulting wind conditions. Therefore, the Group's wind power generation and, in turn, the Group's revenue from wind power sales, fluctuates across different seasons during the year. The Group's solar power projects are affected by weather conditions, seasonal variations and the resulting solar conditions.

COMPETITIVE LANDSCAPE

The PRC power generation industry has developed rapidly in recent years and the Group competes for the development rights associated with potential new projects and, to a lesser extent, acquisition opportunities, especially in more developed, high-growth provinces. There is also competition for allocation of excess output, suitable construction location, acquisition opportunities, equipment supplies and access to bank borrowings among power producers in different provinces in China. The Group possesses a special advantage. Power generated by the power units with a total capacity of 6.4 GW of Jin-Guan Hydropower Project Group is transmitted to Jiangsu Province each year through 800 KV ultra-high-voltage power transmission lines under the west-to-east electricity energy transmission project, and Jiangsu province is one of the most developed regions in China with high demand for power. Most of the power generated by the remaining 4.4 GW power units of Jin-Guan Hydropower Project Group and 3.3 GW power generating capacity of Ertan is transmitted to Sichuan province and Chongqing and entitled to guaranteed purchase. In addition, the Dachaoshan Power Project and the Xiaosanxia Power Project enjoy preferential offtake arrangement. The Group's principal competitors include the PRC's five major power generation groups, namely China Huaneng

Group, China Energy Investment Corporation (which was established through the merger of China Guodian Corporation and Shenhua Group on 28 November 2017), China Datang Corporation, China Huadian Corporation and State Power Investment Corporation. These five state-owned enterprises are the largest entities in the PRC power generation industry. In addition, the major players in the hydropower generation business also include China Yangtze Power Co., Ltd., Huaneng Lantsang River Hydropower Inc. and Guangxi Guiguan Electric Power Co., Ltd. For coal-fired power, China Resources Power Holdings Co., Ltd., Zheneng Electric Power Co., Ltd. and Guangdong Energy Group Co., Ltd. are also among the top operators. The wind and solar power business in China is comparatively fragmented. For additional information on the competitive landscape in the PRC, see "*Industry Overview*".

EMPLOYEES

As at 30 June 2019, the Group had 9,391 full-time employees, including 48 employees in the UK. The following table sets forth a breakdown of the Group's employees by business segment as at the dates indicated:

	As at 31 December			As at 30 June
Business segment	**2016**	**2017**	**2018**	**2019**
Hydropower	4,547	4,563	4,903	4,929
Coal-fired power	4,140	4,109	4,015	3,890
Wind and solar power	429	393	403	453
Others	86	90	114	119
Total	**9,202**	**9,155**	**9,435**	**9,391**

The Group has not experienced any strikes or other material labour disturbances that have interfered with its operations to date, and the Group believes that its management and employees have maintained good relationships with each other. The Group provides full welfare packages to employees, including paid annual leave, basic pension insurance, basic medical insurance, workplace injury insurance, unemployment insurance, maternity insurance and housing provident funds.

ENVIRONMENTAL REGULATION

The Group is subject to environmental laws and regulations in the PRC and other countries where it operates. These laws and regulations govern a broad range of environmental matters. The Group is required to obtain a permit from the relevant local governmental authorities and pass relevant environmental assessments. The Group considers environmental protection to be a priority.

The Group believes that the environmental protection systems and facilities of its power projects comply with applicable national and local environmental protection regulations. All of the Group's coal-fired power generating units are equipped with desulphurisation equipment, electric dust removers and denitration facilities to reduce the emission of air pollutants. The Group has also implemented ultra-low emission upgrades. Over 90% of its coal-fired units in terms of installed capacity achieved ultra-low emissions standard. The Group's investment in carrying out ultra-low emission retrofits of its coal-fired power generating units amounted to approximately RMB391.0 million, RMB496.0 million and RMB53.4 million for 2016, 2017 and 2018, respectively.

The Group considers environmental protection while developing hydropower. All hydropower projects constructed by the Group are built according to international standards. In the 1990s, the construction of Ertan Power Project passed the World Bank's project evaluation (including special assessment of environmentally friendly immigration) and received loans from the World Bank. Since then, the Group has been building power plants in accordance with international standards. All five hydropower plants built along the Yalong River have won national environmental awards or recognitions. Ecological protection throughout the basin is factored in by the Group when developing hydropower. Environmental factors are also taken into consideration when it comes to arranging the development sequence, deciding project scale and setting up the construction period. In addition, the Group added an environmentally friendly evaluation indicator system into its operation process. Specifically, while building the Yalong River Hydropower Project, the Group had layered water intake facilities in place to mitigate the adverse impact that low-temperature water has on downstream fish; it also built an ecological flow discharge facility to protect the river's ecological system. In addition, the Group invested RMB150 million in setting up one of the largest fish proliferation and discharge station in the PRC hydropower industry.

HEALTH AND SAFETY COMPLIANCE

The Group's business operations involve risks and hazards that are inherent in such activities. These risks and hazards could result in damage to property or production facilities, personal injury, business interruption and possible legal liability. All of the Group's projects have complied with relevant PRC laws and regulations and internal policies in material aspects relating to health and safety. The Group has also taken measures to prevent risks and occupation safety diseases. As at 30 June 2019, the Group's projects had not encountered any material business interruption due to occupation health and safety issues. The Group has established a safety management system, as well as a health and safety management department at the headquarters level and in each project company. Generally, project companies are required to approach management of health and safety using a structured management system comprising, amongst other things, a system for continually identifying legal and other requirements, a planned and documented approach to health and safety and the monitoring of health and safety management issues.

INSURANCE

As at 30 June 2019, the Group's projects maintained insurance coverage at a level that it believes to be consistent with market practice in the PRC power generation industry. The Group's power projects usually carry property insurance, machinery and equipment damage insurance, public liability insurance and employer liability insurance, and sometimes carry business interruption insurance to cover lost profit caused by business interruption. The Group believes that the insurance coverage of its power plants and projects is adequate.

CURRENT TRADING AND PROSPECTS

Subsequent to 30 June 2019, the Group continued developing its power generation businesses. In the nine months ended 30 September 2019, the net electricity generated in the Group's hydropower business in China increased by 4.0% to 66,424.7 GWh from 63,843.8 GWh in the same period of 2018, the net electricity generated in the Group's coal-fired power business in China increased by 12.5% to 49,070.2 GWh from 43,614.4 GWh in the same period of 2018, and the net electricity generated in the Group's wind and solar power business in China increased by 45.8% to 2,563.7 GWh from 1,758.9 GWh in the same period of 2018. In the nine months ended 30 September 2019, the average on-grid tariffs of the Group's power projects in China decreased by 3.9% to RMB0.303/kWh from RMB0.315/kWh in the same period in 2018. In particular, in the nine months ended 30 September 2019, the average on-grid tariffs of the Group's hydropower projects, coal-fired power projects, wind power projects and solar power projects in China, as compared with those in the same period of 2018, decreased by 7.2% to RMB0.249/kWh from RMB0.268/kWh, by 3.4% to RMB0.361/kWh from RMB0.374/kWh, by 0.5% to RMB0.477/kWh from RMB0.480/kWh and by 5.1% to RMB0.849/kWh from RMB0.894/kWh, respectively. The decreases were primarily a result of evolving marketisation for different energy sources and government policy adjustment.

On 30 August 2019 and subsequently on 8 October 2019, the Company announced that, in accordance with the Group's strategy to focus on clean energy, it made available for sale its entire equity interests in six coal-fired power companies by way of listing for public trade at the Shanghai United Assets and Equity Exchange. The interests available for sale comprise: (i) a 51.00% equity interest in SDIC Xuancheng; (ii) a 55.00% equity interest in SDIC Beibuwan; (iii) a 60.00% equity interest in SDIC Yili; (iv) a 51.22% equity interest in Jingyuan Second Power; (v) a 35.00% equity interest in Huaibei Guo'an Power Co., Ltd. (淮北国安电力有限公司); and (vi) a 45.00% equity interest in GEPIC Zhangye Power Generation Co., Ltd. (甘肃电投张掖发电有限责任公司).

SDIC Xuancheng, SDIC Beibuwan, SDIC Yili and Jingyuan Second Power are subsidiaries of the Company, contributing 11.4% in aggregate to the total consolidated installed capacity of the Group as at 30 June 2019. Huaibei Guo'an Power Co., Ltd. (淮北国安电力有限公司) and GEPIC Zhangye Power Generation Co., Ltd. (甘肃电投张掖发电有限责任公司) are associates of the Company as at 30 June 2019, contributing 2.3% in aggregate to the share of profits of associates of the Group in the six months ended 30 June 2019. These subsidiaries and associates had an aggregate net loss in 2018 and the six months ended 30 June 2019.

As at the date of this Registration Document, neither the timing of the proposed sales nor the terms of their disposal has been set and no transactional agreements have been entered into by the Company in relation to the proposed transfers. The Company does not expect such transfers to complete prior to Admission.

The Group's business operations are subject to extensive supervision and regulation by the PRC government. This section sets out (i) an introduction to the major PRC government authorities with jurisdiction over the Group's current operations; and (ii) a summary of the major laws, regulations and policies to which the Group is subject.

PRINCIPAL REGULATORS

The State Council

The State Council is the highest administrative authority in the PRC, and is responsible for the formulation and reformation of the PRC Government's administrative and government affairs.

Local people's governments at various levels are the executive bodies of local organs of state power as well as the local organs of State administration at the corresponding levels.

The NDRC and Local Investment Approval Authorities

The NDRC is responsible for (i) formulating and implementing major policies relating to China's economic and social development; (ii) planning the major construction projects and distribution of productive forces; (iii) reviewing and approving investment projects with expenditure exceeding certain amounts or in special industrial sectors, including the power generation sector; and (iv) formulating industrial policies and investment guidelines for all industries.

The competent investment departments of all levels of local governments are responsible for (i) implementing the specific policies formulated by the NDRC; (ii) reviewing and approving investment projects in accordance with the authorisation by the NDRC; and (iii) receiving the filing of other enterprise investment projects that do not require prior approvals.

The National Energy Administration

The National Energy Administration (the "**NEA**"), which is currently managed by the NDRC, integrated the previous responsibilities of the State Electricity Regulatory Commission (the "**SERC**"), is responsible for, among other things, (i) formulating regulations, national standards, policies and strategies relating to the development of energy sector; (ii) reviewing and approving investment projects in the energy sector within its authority; (iii) promoting the preservation and comprehensive utilisation of energy and the research, development and innovations relating to the energy sector; (iv) supervising the operation of the electric power market; and (v) overseeing the production safety, reliability and contingency management of the electric power sector.

The SASAC

The State-owned Assets Supervision and Administration Commission of the State Council (the "**SASAC**") and its local counterparties are authorised to supervise and manage state-owned assets and act as the shareholder of the state-owned enterprises on behalf of the state.

PRC LAWS AND REGULATIONS RELATING TO SUPERVISION OF STATE-OWNED ASSETS

According to the Interim Regulations on the Supervision and Administration of State-owned Assets in Enterprises (企业国有资產监督管理暂行条例) promulgated and implemented on 27 May 2003, and last amended on 2 March 2019, all forms of State investments in enterprises and the equities generated from such investments, as well as other equities which are legally owned by the State, belong to the State. Under the current administration system for state-owned assets, the State Council and local governments shall, on behalf of the State, perform the shareholder's duties and enjoy the shareholder's rights and interests, and state-owned asset supervision and administration bodies shall support legally independent business operations of the state-owned enterprises, and may not intervene in their production and business activities other than the exercising of shareholder's rights.

The main duties of a state-owned asset supervision and administration body are:

- performing the shareholder's duties for state-owned enterprises under its supervision and protecting its shareholder's rights and interests in accordance with the PRC Company Law and other laws and regulations;
- directing and promoting the reform and restructuring of the state-owned enterprises;
- dispatching supervisors to state-owned enterprises under its supervision;
- appointing, removing, and assessing the principals of state-owned enterprises under its supervision according to statutory procedures, and review their performances and provide incentives and penalties based on the review results;
- supervising the preservation and the appreciation of the state-owned assets; and
- performing other duties of shareholders and other matters delegated by the PRC government at the corresponding level.

The state-owned asset supervision and administration body under the State Council may, apart from performing the duties provided for in the preceding paragraph, set forth the rules and regulations on the supervision and administration of the state-owned assets.

PRC LAWS AND REGULATIONS RELATING TO PROJECT REVIEW AND APPROVAL

According to the Government Approved Investment Project Directory (2016 version) (政府核准的投资项目目录(2016年本)), which was promulgated and effected on 12 December 2016, projects of hydropower stations with a per station installed capacity of 500 MW or above built on trans-boundary rivers or on rivers crossing provinces (autonomous regions or municipalities directly under the central government) shall be subject to the approval of competent investment department of the State Council, of which the projects with a per-station installed capacity of 3 GW or above or involving 10,000 displaced residents or above shall be subject to the approval of the State Council. Other projects of hydropower stations shall be subject to the verification and approval by local governments. Projects of coal-fired power (including self-powered stations) shall be subject to the approval of provincial governments in accordance with the overall construction planning formulated by the State and subject to total number control. Projects of wind power stations shall be subject to the approval of local governments following the construction programme and annual guiding development size determined by the State subject to total number control.

For special requirements on the review and approval for renewable energy projects, see "*PRC Laws and Regulations Relating to the Power Industry—Renewable Energy*".

PRC LAWS AND REGULATIONS RELATING TO THE POWER INDUSTRY

Power Generation

According to the Electric Power Law of the PRC (中华人民共和国电力法) promulgated on 28 December 1995 and amended on 27 August 2009, 24 April 2015 and 29 December 2018, respectively, the administrative department of the electric power industry under the State Council shall be responsible for the supervision and control of the electric power industry throughout the nation. The departments concerned under the State Council shall be responsible for the supervision and control of the electric power industry within their own limits of authorities. The administrative department of comprehensive economy under the local government at county level or above is the administrative department of electric power within its own administrative region, which shall be responsible for the supervision and control of the electric power industry. Meanwhile, the electricity price shall be based on the principle of unified policy and unified pricing and managed at different levels. One of the principles of the Electric Power Law is to protect the legitimate interests of investors, operators and users and to ensure the safety of power operations. The Electric Power Law also states that the government encourages domestic and foreign investment in the power industry.

The Electricity Regulatory Ordinance (电力监管条例), which became effective on 1 May 2005, is formulated by the State Council to strengthen the supervision over the electricity industry and improve the electricity supervisory system. It sets forth the regulatory requirements for a number of aspects of the power industry, including, among others, the granting of electric power business licence (电力业务许可证), the regulatory inspections of power plants and grid companies and the legal liabilities resulting from violation of the regulatory requirements.

Pursuant to the Administrative Regulations on Power Business Licences (电力业务许可证管理规定, the "**Power Business Licences Regulations**") issued by the SERC, which was promulgated on 13 October 2005 and became effective on 1 December 2005 and was amended on 30 May 2015, the PRC power industry adopts the market-access permit system. Pursuant to the Power Business Licences Regulations, unless otherwise provided by the SERC, it shall be illegal in the PRC to engage in any electric power business (including power generation, transmission, dispatch and sales) without obtaining an electric power business licence issued by the SERC.

Applicants for the electric power business licence for power generation business must submit relevant evidence documents in respect of the power project's construction, generation capacity and environmental compliance. The NEA will issue the electric power business licence to the applicants after the application materials pass the review.

To apply for a business licence for power generation, the following conditions must be fulfilled:

- construction of the power generation plant has been reviewed and approved or verified by the relevant competent department;
- the power generation facilities have the capability of power generation; and
- the power generation project meets the relevant environmental protection requirements.

According to the Measures on Supervision and Administration of the Work Safety of Electricity Industry (电力安全生産监督管理办法), promulgated on 17 February 2015 and became effective on 1 March 2015, power generation, operation and supply must comply with the relevant safety requirements by the NEA. In case of abnormal or serious personal injury or death, electric accidents, equipment damage, power plant collapse or fires, power plants are required to report related information in accordance with relevant regulations and commence timely investigate the safety incidents.

Renewable Energy

According to the Renewable Energy Law of the PRC (中华人民共和国可再生能源法, the "**Renewable Energy Law"**), which was promulgated on 28 February 2005 and became effective on 1 January 2006 and was amended on 26 December 2009 and became effective on 1 April 2010, renewable energy includes wind power, solar power, hydropower, bioenergy, geothermal energy, ocean energy and other types of non-fossil energy. Pursuant to the Renewable Energy Law, all electricity power generated from clean and renewable energy shall be purchased in full amount **provided that** on-grid technical standards have been complied with and the related power generation entities have obtained relevant administrative approvals or been filed for record. A grid company shall purchase the full amount of on-grid electricity generated by approved clean and renewable power plants that meet the grid connection technical standards in the areas covered by the grid company' power grids.

Pursuant to the Provisions on the Administration of Power Generation from Renewable Energy (可再生能源发电有关管理规定), which became effective on 5 January 2006, the renewable energy power-generating projects shall implement central and local hierarchical management. The NDRC shall make plans for the national renewable energy power-generating projects, develop policies and manage the projects that require the verification and approval or examination and approval of the State. The energy departments of the provincial governments shall manage the renewable energy power-generating projects within the local authority under their jurisdiction.

Pursuant to the Medium and Long-Term Development Plan for Renewable Energy (可再生能源中长期发展规划) issued by the NDRC on 31 August 2007, China will strive to achieve the goal of 15% of the total energy consumption in the PRC being generated from renewable energy (including hydropower) by 2020. In regions covered by major power grids, the percentage of power generated by renewable energy (not including hydropower) shall reach at least 3% of the total power generated by the power grid by 2020. Meanwhile, for investors with installed capacity attributable to it over 5 GW for power generation, the percentage of the installed capacity of renewable power generation attributable to it must reach 8% of the total installed power capacity attributable to it by 2020. Moreover, with respect to wind power generation, the plan also requires full leverage of the economic strength of the more developed coastal regions and the natural resources of China's "three northern regions", being the northwestern, northern and northeastern regions, to construct large and mega wind power stations. The plan also calls for other regions in China to construct medium and small wind power stations as appropriate. With respect to solar power generation, the plan addresses the development of solar power in the areas of (i) household solar power generation system or small-scale photovoltaic power station for remote areas; (ii) on-grid rooftop solar power system and solar power system used in public on-grid facilities; (iii) large-scale photovoltaic and solar thermal power station. The plan also provides that there is a large potential for the application of photovoltaic technology in the area of communications, meteorology, long distance pipelines, railways, and public roads. The NDRC and the NEA jointly published the Notice on Establishing the Safeguard Mechanism for the Consumption of Electricity from Renewable Energy (关于建立健全可再生能源电力消纳保障机制的通知) on 10 May 2019, which provides that a minimum percentage of the annual electricity consumption by each province shall be generated from renewable energy, further promoting the development of renewable energy.

Pursuant to the Interim Measures for the Administration of the Development and Construction of Wind Power Projects (风电开发建设管理暂行办法), which became effective on 25 August 2011, the local planning of wind farms are required to be filed with the competent department of energy under the State Council for record, and projects within the annual development plan of local wind farms are eligible for price subsidies granted to renewable energy development projects only after they are filled with the competent department of energy under the State Council. Before starting preparation work for the construction, developers of wind power projects must apply to and obtain from a competent energy administration authority an approval for carrying out the preparation work.

Pursuant to the Interim Administrative Measures for Photovoltaic Power Station Projects (光伏电站项目管理暂行办法) published by the NEA in August 2013 and the Notice on Further Improving the Administration on the Construction and Operation of Photovoltaic Power Stations (关于进一步加强光伏电站建设与运行管理工作的通知) published by the NEA in October 2014, development and operation of photovoltaic power stations are subject to the supervision of the NEA and local energy administration authorities at provincial levels. The NEA is responsible for the formulation of national annual development plans for photovoltaic power generation, and the energy administration authorities at provincial levels are responsible for the formulation of local development plans and local implementation plans in consultation with the local branches of the NEA and in accordance with the national annual development plan and the indicative size for photovoltaic power station development for the respective region set by the NEA. The development and construction of photovoltaic power stations shall be registered with the local energy administration authority at the provincial level, and shall be within the indicative size for photovoltaic power station development formulated by the NEA. Local power grids shall connect the photovoltaic power stations so registered and developed to the power grid upon the application by such photovoltaic power stations, unless the photovoltaic power station does not meet the criteria for connection.

Power Dispatch

Pursuant to the Regulations on the Administration of Power Dispatch to Networks and Grids (电网调度管理条例), which was promulgated by the State Council on 29 June 1993 and became effective on 1 November 1993 and was amended and effected on 8 January 2011, the power grid is operated in accordance with the centralised dispatching and grading management principles, and on-grid power plants and power grids shall comply with centralised dispatch orders from dispatch centres. Additionally, on-grid power plants and power grids shall enter into grid connection agreements before the power plant connects to the grid, and shall perform their duties and obligations accordingly. Dispatching centres at lower levels shall defer to the dispatch orders from those at higher levels and the operating units in charge of power plants and substations within the jurisdiction of a dispatching centre shall comply with the dispatch orders from such dispatching centre.

Pursuant to the Implementation Measures for the Administrative Rules on Power Grid Dispatching (电网调度管理条例实施办法), which became effective on 11 October 1994, dispatch centres are established at five levels: the national dispatch centre, dispatch centres of the interprovincial (autonomous regions and municipalities also included) power grid, the dispatch centres of the provincial-level power grid, the dispatch centres of the power grid of municipalities within provinces and the dispatch centres of the local power grid. Dispatch centres prepare daily power generation curves to be executed by the power plants, indicating the active power, reactive power and voltage for the day, taking into consideration of all relevant factors such as daily power load demand, internal water level, fuel supplies, capacity of power grid equipment and equipment servicing requirements.

Pursuant to the Administrative Measures of Electric Power Planning (电力规划管理办法) promulgated by the NEA on 17 May 2016, the NEA is the department in charge of power planning within the PRC, while the provincial energy department in charge of the power planning within the province. These two levels of authorities manage the power planning work at national and provincial levels, respectively.

Pursuant to the Interim Measures on the Supervision of the On-grid Connection of Newly Built Power Sources (新建电源接入电网监管暂行办法), which became effective on 1 April 2014, the NEA and its agencies shall supervise the on-grid connection of newly built power sources, including water conservancy projects with on-grid power generating sets and hydroelectricity generating sets with navigation-power hubs.

Pricing

The Electric Power Law of the PRC sets forth the general principles for the pricing of electric tariffs. Electric tariffs are to be formulated based on a costs (and taxes) plus reasonable returns basis, based on the principle of a fair share of costs with the aim to promote the development of the electric power industry. The Power Tariff Reform Plan (电价改革方案) approved by the State Council on 9 July 2003 sets forth a long-term objective for the reform of power tariff, being to establish a standardised and transparent power tariff managing mechanism on the basis of consistently deepening the reform of the electricity power system.

On 28 March 2005, the NDRC promulgated the implementation rules of tariff reform, including the Provisional Measures for the Administration of On-grid Tariff (上网电价管理暂行办法), the Provisional Measures for the Administration of Power Transmission and Distribution Prices (输配电价管理暂行办法) and the Provisional Measures for the Administration of Power Selling Prices (销售电价管理暂行办法), which specifies the authorities of tariff management and regulates the pricing mechanism of on-grid power, the power transmission and distribution and the sales of power.

Pursuant to the Provisional Measures for the Administration of On-grid Tariff, which became effective on 1 May 2005, for power plants within the local grids that have not implemented competitive bidding mechanisms, on-grid tariffs will be determined by the competent pricing authorities based on production costs plus a reasonable investment return. For power plants within the local grids that have implemented competitive bidding mechanism for tariffs, a two-tier on-grid tariff should be applied, consisting of (i) a capacity tariff determined by the pricing authorities based on the average investment cost of the power plants competing within the same local grid; and (ii) a competitive tariff determined through the competitive bidding processes.

According to the Notice on Issues Relating to the Administration of Electricity Energy Trading Prices (关于规范电能交易价格管理等有关问题的通知), which became effective on 11 October 2009, except for interprovincial or interregional power transactions or otherwise provided by the State, all on-grid tariffs of the on grid electricity from the generator sets entering commercial operation shall be determined according to the tariffs set by the local pricing authority. All renewable energy operators (excluding hydropower operators) must comply with the on-grid tariffs as approved by the pricing authorities.

According to the Notice on Issues Relating to a Proper Adjustment of Tariff (关于适当调整电价有关问题的通知), which became effective on 27 May 2011, the on-grid tariff of coal-fired power plants was increased and the on-grid tariffs of certain hydroelectric power enterprises were verified and adjusted.

According to the Certain Opinions of the CPC Central Committee and the State Council on Further Implementation of System Reform in Electric Power Industry (中共中央、国务院关于进一步深化电力体制改革的若干意见), which became effective on 15 March 2015, except for electricity consumption for public welfare purposes, the determination of selling prices and on-grid tariff for electricity should gradually become market-based. The opinions further state that the on-grid tariff for power generation enterprises that participate in power market trading should be determined independently by the power generation enterprises with the end user or the electricity trading institutions through arms' length negotiations or market bidding. Furthermore, the price of electricity traded on the electricity market consists of three parts, namely, (i) the market tariff; (ii) power transmission and distribution price (including line loss); and (iii) governmental fund contributions. On-grid electricity that does not participate in direct trading and bidding transactions and electricity consumption for residential, agriculture, important public utilities and public welfare purposes shall remain subject to controlled pricing.

The NDRC published the Notice on Improvement of the On-grid Price Policies for Wind Power (关于完善风电上网电价政策的通知) in May 2019 and the Announcement on the Overall Liberalisation of the Electricity Generation and Consumption Plans for Industrial and Commercial Users (关于全面放开经营性电力用户发用电计划的通知) in June 2019, reiterating the principle of a market-based pricing regime for wind power and eligible electricity users.

PRC LAWS AND REGULATIONS RELATING TO BUSINESS QUALIFICATIONS AND LICENCES

Electric Power Business Licences

According to the Power Business Licences Regulations, an enterprise that engages in any electric power business (including power generation, power transmission and power supply) within the PRC shall obtain an electric power business licence. Unless the otherwise approved by the SERC, it shall be illegal to engage in any electric power business without obtaining an electric power business licence.

Electric power business licences are divided into three categories: power generation, power transmission and power supply, and are valid for twenty years after granting. The holder of the electric power business licence shall reapply for the renewal of the licence within 30 days prior to its expiration.

Water Collection Permit

Key PRC Laws and regulations regulating water collection include (i) Water Law of the PRC (中华人民共和国水法), which was promulgated by the Standing Committee of National People's Congress (the "**NPC Standing Committee**") on 21 January 1988 and last amended on 2 July 2016; (ii) the Regulations on Administration of Water Collection Permit and Water Collection Charges (取水许可和水资源费徵收管理条例), which was promulgated by the State Council on 21 February 2006 and amended on 1 March 2017; and (iii) the Measures on Administration of Water Collection Permit

(取水许可管理办法), which was promulgated by the Ministry of Water Resources on 9 April 2008 and last amended on 22 December 2017. According to these laws and regulations, except for those otherwise not required to apply for water collection licence, any person and entities who directly obtain water resources from rivers, lakes and underground water by water extradition works or facilities shall apply to the water administration departments or water authorities for a water collection permit and pay the water resource charges to collect water. Persons collecting water shall collect water according to the approved annual water collection plan. In the event that the water collected exceeds the limit under the plan, additional water resources charges shall be paid on the exceeding portion. However, according to the Pilot Implementation Measures on Expanding the Reformation on Water Resource Tax (扩大水资源税改革试点实施办法) jointly promulgated by the MOF, the State Administration of Taxation and the Ministry of Water Resource on 24 November 2017 and effective on 1 December 2017, water collecting persons in Sichuan province shall pay water resource taxes instead of water collection charges.

Water collection permits are generally valid for five years and usually no more than ten years. Upon expiration, water collection licences can be renewed by submitting renewal applications to the approving authorities within 45 days prior to the expiration.

Pollutant Discharge Permit

According to the Law on the Prevention and Control of the Atmospheric Pollution of the PRC (中华人民共和国大气污染防治法) promulgated on 5 September 1987 and last revised on 26 October 2018, the Law on Prevention of Water Pollution of the PRC (中华人民共和国水污染防治法) promulgated on 11 May 1984 and last revised on 27 June 2017, the PRC implements a pollutants discharge permit system.

According to the Measures for the Administration of Pollutant Discharge Permits (Trial) (排污许可管理办法（试行）) promulgated on 10 January 2018, pollutant discharge permits are granted by competent environmental protection authorities at municipal level. A pollutant discharge permit is generally valid for three years for the first application. Upon the expiration, pollutant discharge permits can be renewed by submitting renewal applications to the approving authorities and the renewed permits is valid for five years.

It is illegal to discharge pollutants without a pollutant discharge permit. Any person who illegally discharges pollutants without a pollutant discharge permit shall be subject to compulsory rectification, fines or other form of penalties in accordance with relevant laws.

PRC LAWS AND REGULATIONS RELATING TO ENVIRONMENTAL PROTECTION

According to the Environmental Protection Law of the PRC (中华人民共和国环境保护法) promulgated by the NPC Standing Committee on 26 December 1989, amended on 24 April 2014 and became effective on 1 January 2015, persons causing environmental pollution and other public hazards shall adopt effective measures to prevent and control the pollution and public hazard. The design, construction and commencement of operation of facilities for prevention and control of pollution shall be conducted at the same time with that of the main body of the operating project that causes such pollution. Facilities for the prevention and control of pollution shall conform to the requirements of the approved document of environment impact assessment and shall not be dismantled or left idle without permission.

According to the Environmental Impact Assessment Law of the PRC (中华人民共和国环境影响评价法) promulgated on 28 October 2002 and last amended on 29 December 2018 and the Rule on Classification for Environmental Impact Assessment for Construction Projects (建设项目环境影响评价文件分级审批规定) promulgated by the Ministry of Environmental Protection of the PRC on 16 January 2009 and came into effect on 1 March 2009, it is required that the environmental impact of any construction project be assessed and classified based on the degree of environmental impact caused by the project. In the event of significant environmental impact, an environmental impact report shall include a comprehensive appraisal on the possible environmental impact; in the event of slight environmental impact, an environmental impact form shall include a general analysis or appraisal on the environmental impact; and in the event of minimal environmental impact so that it is not necessary to conduct an environmental impact appraisal and an environmental impact registration form shall be filed instead.

According to the Regulation on the Administration of Environmental Protection Measures of Construction Projects (建设项目环境保护管理条例), which was promulgated on 29 November 1998 and amended on 16 July 2017 and became effective on 1 October 2017, for any project for which an environmental impact report or an environmental impact form is required to be prepared, the environmental impact report or environmental impact form shall be submitted by the developer of the project to competent authorities for approval prior to the commencement of the construction of the project. The construction of the project may not start before the environmental impact report or environmental impact form is approved. The developer is also required, after the completion of the project development, to prepare an inspection and acceptance report on pollution prevention and control facilities to be operated together with the project.

PRC LAWS AND REGULATIONS RELATING TO LABOUR PROTECTION

Labour Law of the PRC

The Labour Law of the PRC (中华人民共和国劳动法), which was promulgated by the NPC Standing Committee on 5 July 1994 and last amended on 29 December 2018, provides that an employer shall develop and improve its rules and regulations to safeguard the rights and interests of its employees. An employer shall develop and improve labour safety and health procedures, comply with national protocols and standards on labour safety and health, conduct labour safety and health education for its personnel, take measures to prevent labour safety accidents and reduce occupational hazards. Labour safety and health facilities must comply with relevant national standards. Employers must provide employees with the necessary labour protection gear that complies with national standards, as well as provide regular health examinations for workers that are exposed to occupational hazards.

Labour Contract Law of the PRC and its Implementation Rules

The Labour Contract Law of the PRC (中华人民共和国劳动合同法) (the "**Labour Contract Law**"), which was promulgated by the NPC Standing Committee on 29 June 2007 and amended on 28 December 2012 and the Implementation Rules for the Labour Contract Law of the PRC (中华人民共和国劳动合同法实施条例) which was promulgated and became effective on 18 September 2008 regulate parties to a labour contract, namely the employer and the employee, and contain specific provisions involving the terms and conditions of the labour contract. Pursuant to the Labour Contract Law and its implementation rules, a labour contract must be made in writing. Employer and employees may enter into a fixed-term labour contract, non-fixed term labour contract, or labour contracts that expire upon completion of given tasks. An employer may legally terminate a labour contract and dismiss its employee upon mutual agreement or by fulfilling relevant statutory conditions, including payment of additional compensation.

Laws and Regulations on the Supervision over Social Security and Housing Provident Funds

According to the Temporary Regulations on the Collection and Payment of Social Insurance Premium (社会保险费征缴暂行条例), which was promulgated by the State Council on 22 January 1999 and amended on 24 March 2019, the Regulations on Workers' Compensation Insurance (工伤保险条例), which was promulgated by the State Council on 27 April 2003 and amended on 20 December 2010, the Regulations on Unemployment Insurance (失业保险条例), which was promulgated by the State Council and became effective on 22 January 1999 and the Trial Measures on Maternity Insurance for Enterprises Employees (企业职工生育保险试行办法), which was promulgated by the Ministry of Labour on 14 December 1994 and became effective on 1 January 1995, employers in the PRC are required to pay social security contributions for their employees, including a basic pension plan, unemployment insurance, maternity insurance, workers' compensation insurance and basic medical insurance. Employers are required to register with local social security authorities, and pay and withhold social security contributions for or on behalf of its employees. The Law on Social Security of the PRC (中华人民共和国社会保险法), which was promulgated on 28 October 2010 and amend on 29 December 2018, provides for details on employers' social security obligations and the liabilities for failing to comply.

The Regulation on the Administration of Housing Provident Funds (住房公积金管理条例), which was promulgated by the State Council on 3 April 1999 and last amended on 24 March 2019, provides that employers shall pay, together with each employee, contributions to a housing provident fund. The housing provident fund contributions so paid by the employer and the employee shall belong to the employee.

The following selected consolidated financial information and other financial data relating to the Group as at and for the years ended 31 December 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019 have been extracted from, and should be read in conjunction with, the Historical Financial Information, which is included in the F-pages of this Registration Document. Certain operating data relating to the Group are also set forth below. The following section also includes certain non-IFRS financial information (EBITDA and EBITDA margin) for the periods indicated, which has not been extracted from the Historical Financial Information and has not been prepared in accordance with IFRS. A reconciliation of profit before tax from continuing operations for the period/year to EBITDA and EBITDA margin can be found in "*Operating and Financial Review—Key Performance Indicators and Other Financial Metrics*".

The selected consolidated financial information should be read in conjunction with "Operating and Financial Review".

SELECTED CONSOLIDATED COMPREHENSIVE INCOME STATEMENT

	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
	(RMB in millions)				
				(unaudited)	
Continuing operations					
Revenue	29,270.8	31,643.1	41,011.4	17,786.5	19,609.5
Cost of sales	(15,100.6)	(18,802.8)	(24,440.2)	(10,985.7)	(11,839.5)
Gross profit	**14,170.2**	**12,840.3**	**16,571.2**	**6,800.8**	**7,770.0**
Administrative cost	(935.5)	(999.1)	(1,206.4)	(539.8)	(538.1)
Taxes and surcharges	(457.6)	(563.6)	(961.7)	(391.8)	(436.7)
Distribution cost	(6.0)	(7.6)	(6.6)	(3.6)	(1.8)
Impairment of financial assets	(550.7)	(42.6)	5.7	(77.8)	(86.0)
Impairment of property, plant and equipment, inventory and intangibles	(15.0)	(59.4)	(401.7)	—	—
Other income and expense	946.2	878.5	171.8	138.3	74.0
Operating profit	**13,151.6**	**12,046.5**	**14,172.3**	**5,926.1**	**6,781.4**
Share of profits of associates	631.2	345.7	521.5	219.4	426.3
Investment (loss)/income	176.5	(0.1)	0.5	0.5	—
Fair value movements on financial instrument measured at fair value through profit and loss	—	—	44.7	20.0	5.5
Finance income	56.8	51.1	86.0	34.4	72.7
Finance costs	(5,099.0)	(4,928.9)	(5,157.1)	(2,490.2)	(2,435.2)
Profit before tax from continuing operations	**8,917.1**	**7,514.3**	**9,667.9**	**3,710.2**	**4,850.7**
Income tax expense	(1,057.5)	(954.8)	(1,352.3)	(617.6)	(748.6)
Profit for the year/period from continuing operations	**7,859.6**	**6,559.5**	**8,315.6**	**3,092.6**	**4,102.1**
Profit for the year/period	**7,859.6**	**6,559.5**	**8,315.6**	**3,092.6**	**4,102.1**
Profit for the year attributable to:					
Owners of the Company	3,916.4	3,232.3	4,329.2	1,570.5	2,275.0
Non-controlling interests	3,943.2	3,327.2	3,986.4	1,522.1	1,827.1

SELECTED STATEMENT OF FINANCIAL POSITION

	As at 31 December			As at 30 June
	2016	2017	2018	2019
		(RMB in millions)		(unaudited)
ASSETS				
Non-current assets				
Property, plant and equipment	179,970.5	183,190.8	187,818.7	188,678.8
Investment properties	116.0	110.1	103.1	102.1
Intangible assets	2,258.6	2,032.5	2,007.4	1,870.9
Goodwill	401.6	414.2	409.4	411.0
Investments in associates.	8,846.8	8,729.6	10,523.8	10,343.2
Fair value through other comprehensive income instrument	90.0	95.3	188.8	160.0
Long-term receivable	517.9	530.7	1,126.6	1,461.7
Deferred tax assets	205.3	237.4	287.7	374.3
Other non-current assets	256.8	664.8	993.4	1,318.3
Total non-current assets	**192,663.5**	**196,005.4**	**203,458.9**	**204,720.3**
Current Assets				
Inventories	1,068.1	1,183.2	1,516.7	1,585.2
Accounts and notes receivables	3,028.5	4,036.2	5,813.0	6,243.2
Prepayments and other receivables	471.7	540.2	456.2	535.4
Tax recoverable	1,711.3	1,384.9	1,146.4	1,069.9
Cash and cash equivalents	4,154.3	4,972.4	7,470.0	7,965.0
Restricted deposits	186.3	158.3	130.5	45.5
Fair value through profit and loss investment	—	—	844.7	855.9
Other current assets	7.3	7.4	0.1	7.1
Total current assets	**10,627.5**	**12,282.6**	**17,377.6**	**18,307.2**
Total assets	**203,291.0**	**208,288.0**	**220,836.5**	**223,027.5**
EQUITY AND LIABILITIES				
Equity				
Equity attributable to owners of the Company				
Share capital	6,786.0	6,786.0	6,786.0	6,786.0
Other equity instruments	—	—	3,999.0	3,999.0
Reserves	7,621.8	7,963.5	8,359.8	8,125.6
Retained earnings/(accumulated losses)	14,272.6	15,805.8	18,546.9	19,193.2
Equity attributable to owners of the Company	28,680.4	30,555.3	37,691.7	38,103.8
Non-controlling interests	28,037.4	30,152.3	32,491.4	31,352.0
Total equity	**56,717.8**	**60,707.6**	**70,183.1**	**69,455.8**
Non-current liabilities				
Long-term loans	103,535.5	108,886.8	111,704.1	117,613.1
Long-term bonds	3,000.0	3,000.0	2,200.0	4,399.9
Long-term payable	520.0	489.9	514.6	168.3
Lease liabilities	1,777.0	357.8	392.5	426.5
Provision	652.8	514.7	415.2	346.8
Deferred income	243.6	233.8	210.5	224.5
Deferred tax liabilities	31.1	41.6	47.0	41.6
Total non-current liabilities	**109,760.0**	**113,524.6**	**115,483.9**	**123,220.7**
Current liabilities				
Accounts and notes payables	6,968.5	6,237.8	5,507.3	3,501.4
Other payables	7,829.0	7,131.4	5,758.1	5,901.9
Taxes payables	730.0	732.6	1,135.1	750.8
Dividends payables	168.5	5.2	260.7	3,606.8
Short-term loans	7,917.9	4,741.3	5,764.1	6,234.9
Short-term bonds	4,500.0	1,200.0	1,000.0	1,000.0
Current portion of long-term liabilities	8,699.3	14,007.5	15,744.2	9,325.1
Other current liabilities	—	—	—	30.1
Total current liabilities	**36,813.2**	**34,055.8**	**35,169.5**	**30,351.0**
Total liabilities	**146,573.2**	**147,580.4**	**150,653.4**	**153,571.7**

SELECTED CASH FLOW STATEMENT

	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
	(RMB in millions)				
				(unaudited)	
Net cash flows generated from operating activities	19,009.7	18,089.9	19,132.9	7,514.5	8,918.4
Net cash flows from investing activities brought forward	(23,425.0)	(11,125.3)	(13,616.4)	(6,197.7)	(5,227.2)
Net cash generated from/(used in) financing activities	2,441.8	(6,138.3)	(3,025.3)	2,714.4	(3,204.6)
Net (decrease)/increase in cash and cash equivalents	(1,973.5)	826.3	2,491.2	4,031.2	486.6
Cash and cash equivalents at the beginning of year/ period	6,123.4	4,154.3	4,972.4	4,972.4	7,470.0
Exchange gain/(loss) on cash and cash equivalents	4.4	(8.2)	6.4	(2.9)	8.4
Cash and cash equivalents at the end of year/ period	**4,154.3**	**4,972.4**	**7,470.0**	**9,000.7**	**7,965.0**

SEGMENTAL INFORMATION

The following table sets forth the Group's revenue by segment (after inter-segment eliminations) for the periods indicated:

	Year ended 31 December						Six months ended 30 June			
	2016		2017		2018		2018		2019	
	Revenue	% of revenue	Revenue	% of revenue	Revenue	% of revenue	Revenue	% of revenue	Revenue	% of revenue
	(RMB in millions, except percentages)									
							(unaudited)			
Hydropower	17,925.6	61.2	17,743.1	56.1	19,660.9	47.9	8,081.1	45.4	8,247.6	42.1
Coal-fired power	10,485.6	35.8	12,666.0	40.0	19,523.2	47.6	8,765.2	49.3	10,125.7	51.6
Wind and solar power	501.8	1.7	749.2	2.4	1,180.8	2.9	663.7	3.7	853.1	4.4
Others	357.8	1.2	484.8	1.5	646.5	1.6	276.5	1.6	383.1	1.9
Total	**29,270.8**	**100.0**	**31,643.1**	**100.0**	**41,011.4**	**100.0**	**17,786.5**	**100.0**	**19,609.5**	**100.0**

KEY PERFORMANCE INDICATORS AND OTHER FINANCIAL METRICS

The following table sets forth the key measurements of the Group's profitability:

	As at and for the year ended 31 December			As at and for the six months ended 30 June	
	2016	2017	2018	2018	2019
	(RMB in millions, except percentages)				
Profit for the year/period	7,859.6	6,559.5	8,315.6	3,092.6	4,102.1
Net margin[(1)]	26.9%	20.7%	20.3%	17.4%	20.9%
EBITDA[(2)] *(unaudited)*	20,015.5	19,039.9	21,890.2	9,627.6	11,088.2
EBITDA margin[(2)] *(unaudited)*	68.4%	60.2%	53.4%	54.1%	56.5%

(1) Net margin is calculated by dividing profit for the year/period by revenue.

(2) EBITDA is defined as profit before tax from continuing operations, plus depreciation of property, plant and equipment, amortisation of intangible assets and finance costs (excluding net foreign exchange gain or loss and others). EBITDA margin is calculated by dividing EBITDA by revenue. EBITDA or EBITDA margin is not an IFRS measure and should not be considered as an alternative to net profit, net margin or any other performance measures derived in accordance with IFRS or as an alternative to cash flow from operating activities or as a measure of the Group's liquidity. The Group believes that inclusion of EBITDA and EBITDA margin is appropriate to provide additional information to investors about the Group's operating performance and to provide a measure of operating results unaffected by differences in capital structures, capital investment cycles and ages of related assets among otherwise comparable companies. EBITDA and EBITDA margin have limitations as an analytical tool, and it should not be considered in isolation, or as a substitute for analysis of the Group's operating results as reported under IFRS.

The following discussion and analysis of the Group's operating and financial results is based on, and should be read in conjunction with, the Historical Financial Information. Recipients of this Registration Document should read the following discussion together with the whole of this Registration Document, including "Risk Factors", "Selected Consolidated Financial Information and Other Financial Data" and the Historical Financial Information (including the related notes), and should not rely solely on the information set out in this section.

The following discussion includes certain forward-looking statements that, although based on assumptions that the Company considers to be reasonable, are subject to risks and uncertainties that could cause actual events or conditions to differ materially from those expressed or implied in this Registration Document. Among the important factors that could cause the Group's actual results, performance or achievements to differ materially from those expressed in such forward-looking statements are those factors that are discussed in "Forward-Looking Statements" and "Risk Factors" in this Registration Document. All statements, other than statements of historical fact, such as statements regarding the Group's future financial position and risks and uncertainties related to the Group's business, plans and objectives for future operations, are forward-looking statements.

OVERVIEW

The Group is a leading power generation company in China, with a diversified portfolio of projects across hydropower, coal-fired power, wind power and solar power. The Group acquires, develops and operates power projects and sells the electricity generated by them to grid companies.

In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the Group's revenue was RMB29,270.8 million, RMB31,643.1 million, RMB41,011.4 million, RMB17,786.5 million and RMB19,609.5 million, respectively; and its net profit was RMB7,859.6 million, RMB6,559.5 million, RMB8,315.6 million, RMB3,092.6 million and RMB4,102.1 million, respectively.

BASIS OF PRESENTATION

The Group's consolidated financial information in 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019 has been prepared in accordance with IFRS. The consolidated financial statements have been prepared on a historical cost basis, except for financial instruments measured at fair value through other comprehensive income and fair value through profit and loss. The consolidated financial statements are presented in Renminbi.

The consolidated financial statements present the results of the Company and its subsidiaries as if they formed a single entity. Where the Group has control over an investee, it is classified as a subsidiary. Control is achieved when the Group has power over the investee, is exposed to variable returns from the investee, and has the ability to affect those variable returns through its power over the investee. All material intra-group transactions and balances have been eliminated on consolidation.

KEY FACTORS AFFECTING THE GROUP'S RESULTS OF OPERATIONS

The following factors are the principal factors that have affected and, as the Group expects, will continue to affect the Group's business, financial condition, results of operations and prospects.

Segment and Business Mix

The Group owns a diversified portfolio of power generating projects, comprising hydropower, coal-fired power, wind power and solar power projects. The Group's gross margin varies across its business segments, as well as different power generating assets in the same segment. Changes to the Group's portfolio in response to its business strategies, government policies, market opportunities and other factors may affect its revenue and profitability over time.

The Group's results of operations are affected by the relative size and performance of each of its business segments. The Group's hydropower business has, in general, a higher gross margin than other businesses, as its cost of sales remains relatively stable as it grows, and it contributed to a considerable portion of revenue and gross profit to the Group's total revenue and gross profit in 2016, 2017 and 2018, and, accordingly, had a greater impact on the Group's results of operations. Meanwhile, in 2016, 2017 and 2018, the revenue and profit contribution from the wind and solar power business increased and, as the Group continues to focus on scaling up this segment, it expects the revenue and profit contribution from this business to increase further. In 2016, 2017 and 2018, the Group's revenue from the coal-fired power business increased, in light of the increasing installed coal-fired power capacity.

The Group intends to continually monitor and adjust its project portfolio across business segments to maximise revenue and profitability.

Expansion of Installed Capacity

The Group's results of operations and financial condition are significantly affected by the installed capacity of its power projects in operation, and the growth of its project portfolio. As the Group increases its installed capacity, its potential power generation and electricity sales increase. The increased scale and production of the Group's project portfolio enable it to benefit from economies of scale.

The following table sets forth the Group's consolidated installed capacity, net power generation and revenue by power source as at the dates or for the periods indicated:

	As at or for the year ended 31 December			As at or for the six months ended 30 June	
	2016	2017	2018	2018	2019
Hydropower					
Consolidated installed capacity *(MW)*	16,720.0	16,720.0	16,720.0	16,720.0	16,763.5
Net power generation *(GWh)*	80,033.0	82,565.7	83,944.4	34,401.6	36,966.0
Revenue *(RMB in millions)*	17,925.6	17,743.1	19,660.9	8,081.1	8,247.6
Coal-fired power					
Consolidated installed capacity *(MW)*	11,756.0	13,756.0	15,756.0	15,756.0	15,756.0
Net power generation *(GWh)*	36,233.8	41,259.0	60,799.6	27,594.9	31,596.7
Revenue *(RMB in millions)*	10,485.6	12,666.0	19,523.2	8,765.2	10,125.7
Wind and solar power					
Consolidated installed capacity *(MW)*	808.5	1,144.0	1,579.0	1,184.0	1,848.0
Net power generation *(GWh)*	1,035.0	1,706.7	2,460.0	1,124.5	1,749.5
Revenue *(RMB in millions)*	501.8	749.2	1,180.8	663.7	853.1

The Group's hydropower business has been and will continue to be its key focus for the foreseeable future. As at 31 December 2016, 2017 and 2018 and 30 June 2019, the Group's consolidated hydro installed capacity remained stable, representing 48.8% of the Group's total consolidated installed capacity as at 30 June 2019. In addition to hydropower projects, the Group intends to expand its wind and solar power business through mergers and acquisitions as well as greenfield development in the PRC and overseas. However, any delay in the construction and the commencement of commercial operations of any of the Group's power projects could adversely affect its expansion plan and results of operations.

On-grid Tariff

The Group derives substantially all of its revenue from the sales of electricity, and, as a result, its results of operations are affected by the sales price of electricity, known as the on-grid tariff, and changes to such tariff. In general, the sales price of the majority of the Group's electricity is approved by the relevant pricing authorities in the PRC and the rest is formed through various market mechanisms. Accordingly, the Group's business is dependent on the PRC pricing policy and marketisation for different energy sources. See "*Business Description—Pricing and Sales*".

The following table sets forth the Group's average on-grid tariff (inclusive of VAT) by power source for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	**2017**	**2018**	**2018**	**2019**
			(RMB/kWh)		
Hydropower	0.262	0.251	0.268	0.272	0.255
Coal-fired power	0.338	0.357	0.369	0.377	0.364
Wind power	0.487	0.473	0.479(1)	0.489	0.478(1)
Solar power	1.047	0.998	0.875	1.003	0.863

(1) Excluding Afton Wind Power Project

For hydropower, there are three major pricing methods to determine the on-grid tariff of the planned output of the Group's hydropower projects: (i) local price backward pricing; (ii) individual project pricing; and (iii) benchmark pricing. Under the local price backward pricing method, the NDRC determines the on-grid tariff with reference to the local market price at the power receiving side, after deducting the transmission price charged by the grid company. Under the individual project pricing method, the on-grid tariff is determined by the relevant pricing authority on a case-by-case basis. Under the benchmark pricing method, the on-grid tariff is calculated based on the average costs of hydropower stations of the same category. As a result, the on-grid tariff for hydropower plants varies from one hydropower project to another.

The on-grid tariffs of the planned output of the Group's coal-fired power projects are determined by factors including, but not limited to, the benchmark price and the price compensation. The benchmark price is announced primarily by the NDRC, in consideration of the average cost of coal-fired power generation, which is affected by various factors, including the average utilisation hours and the depreciation of equipment. The price compensation is provided when certain standards such as denitrification and ultra-low emission are met.

The on-grid tariffs of the planned output of the Group's wind and solar power projects in China are determined by governmental authorities based on the actual location of such wind and solar power projects. For wind power projects, the PRC government has categorised the wind resources of the PRC into four wind resource zones and applies a universal on-grid tariff to all the wind power projects in the same wind resource zone approved within the same period. For solar projects, the PRC government has categorised the solar energy resources of the PRC into three zones and applies a universal on-grid tariff to all the solar projects in the same resource zone approved within the same period.

Dispatch Output and Electricity Demand

The volume of electrical output dispatched from the Group's power projects affects its revenue and profit. Under the Group's power purchase agreements, the level of demand for electricity in the regions where it sells electricity directly impacts its total output dispatched. Changes in demand for electricity also affect the utilisation hours of its projects. Nationwide demand for electricity has shown an overall long-term increase, generally reflecting a positive correlation with economic growth. The Group expects that its financial results will continue to be affected by the overall growth rates of the economies, particularly those of the PRC provinces where it operates. To the extent that demand for electricity decreases, its results of operations may be adversely affected. See "*Industry Overview*" for further discussion on power supply and demand.

In China, the Group has power purchase agreements that are subject to annual allocation offtake arrangements for which provincial government authorities for each power project within its jurisdiction make planned output determinations. These determinations are based on the provincial governments' assessment of demand, market conditions, supply of power available in the region and national policies. Certain hydropower projects of the Group benefit from the preferential offtake under PRC regulations. See "*Business Description—Competitive Strengths—Industry leading hydropower utilisation hours*". However, the Group's dispatch under preferential offtake regulations is still subject to the local electricity demand. Any significant changes in the demand for electricity in regions where the Group's power projects in China are located will have a material effect on its dispatch output and, in turn, on its profit and financial condition.

Operational Efficiency

The net power generation of the Group's power projects is a function of the consolidated installed capacity and utilisation hours. The Group's consolidated installed capacity increases as it expands, and the utilisation hours are calculated by dividing the gross power generation in a specific period by the average consolidated installed capacity in such period. The following table sets forth a breakdown of the Group's average utilisation hours of its power generating assets in China by power source for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	**2017**	**2018**	**2018**	**2019**
			(Hours)		
Hydropower	4,822	4,965	5,048	2,069	2,220
Coal-fired power	3,701	3,543	4,367	2,117	2,133
Wind and solar power	1,402	1,720	1,855(1)	1,002	1,077(1)

(1) Excluding Afton Wind Power Project

Assuming that a project operates at full capacity, 24 hours a day for a year, its theoretical maximum utilisation hours are 8,760 hours per year. However, utilisation hours are affected by a number of factors depending on the business segment. In particular, the operations of hydropower projects are, to a large extent, dependent on rainfall and associated hydrological conditions, and the absence of acceptable climatic conditions for the Group's hydropower projects may adversely affect the output of such projects. Meanwhile, coal-fired power projects are primarily dependent on the demand and the planned output assigned by the local government. Unlike hydropower projects, they are largely unaffected by weather conditions, and are therefore generally able to operate continuously. Moreover, wind power projects are generally affected by wind conditions and solar power projects photovoltaic conditions. They are also subject to grid constraints. In addition, utilisation hours are also influenced by repairs and maintenance, and performance of equipment. For instance, any slowdown or stoppage in the operations of any of the Group's projects due to maintenance and repairs, whether planned or unplanned, will result in a decrease in its utilisation hours as well as its revenue, and an increase in repair and maintenance expenses.

Utilisation hours of the Group's projects are an indicator of their operational efficiency. The level of operational efficiency that each project is able to attain further depends on a variety of factors, including normal degradation of the generating units and the quality of repairs and operations and maintenance services performed on the projects. If the Group's utilisation hours decrease significantly with other factors remaining the same, then its revenue will also decrease. See "*Business Description—Power Generation Business*".

Coal Consumption and Supply

Costs of coal have in the past accounted for the majority of the cost of sales in the Group's coal-fired power business. In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the Group's costs of coal represented 60.4%, 69.9%, 76.2%, 55.2% and 54.0% of the cost of sales for its coal-fired power business, respectively. The Group's results of operations could be affected by fluctuations in coal prices, as well as any disruptions in the coal supply and the sufficiency of transportation resources available to the Group. While decreases in coal costs may increase the Group's profit margins, conversely increases in coal costs may negatively impact its profit margin.

The Group sourced its coal from major coal suppliers in China, such as China Shenhua Energy Company Limited (中国神华能源股份有限公司) and China National Coal Group Corporation (中国中煤能源集团有限公司). The Company entered into framework purchase agreements with these suppliers, pursuant to which each project company signed annual purchase agreements based on its relevant plans. The Group also sourced its coal from the open market in China or overseas for favourable prices.

The Group negotiates the coal price with coal suppliers for its power generation. The price of coal is affected by factors including market conditions, applicable VAT, government pricing policies and costs of transportation. In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the average price of standard coal (7,000 kcal/kg) per tonne that the Group purchased was RMB452, RMB638, RMB698, RMB705 and RMB649, respectively.

In addition, the net standard coal consumption rate of coal-fired power projects will decrease when they generate more electricity as a result of economies of scale, thereby saving costs of coal per power generation unit.

Financing Arrangements

Apart from the Group's operating cash flow, shareholder contributions and bond issues, its projects are primarily financed by bank and related party loans. As at 30 June 2019, the Group's total indebtedness amounted to RMB139,167.8 million. In addition, as at the same date, the Group had capital commitments of RMB23,683.8 million for purchases of property, plant and equipment and intangibles, principally for developing hydropower projects under construction. In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the Group's finance costs were RMB5,099.0 million, RMB4,928.9 million, RMB5,157.1 million, RMB2,490.2 million and RMB2,435.2 million, respectively. Any significant changes in the prevailing interest rate in China may affect the Group's finance costs. See "*Risk Factors—Risks Related to the Group's Financial Aspects*".

As part of the Group's business strategy, it expects to continually increase its consolidated installed capacity. The Group estimated that it would incur approximately RMB6.4 billion of capital expenditures in the second half of 2019 to fund its business expansion. As the Group expands its business, it expects to continue to require a significant amount of external financing in the foreseeable future.

The Group has long-term relationships with many of the major commercial banks in China and has in place bank loans on competitive terms to fund its business expansion. Due to its AAA credit rating in China and strong shareholder base, the Group's interest rates have been relatively low in the past, typically lower than the PBOC's benchmark lending rate. As at 30 June 2019, the Group had an aggregate of over RMB100 billion of unutilised loan commitments from, amongst others, China Development Bank, Agricultural Bank of China, China Construction Bank, Bank of China and Industrial and Commercial Bank of China. These loan commitments are revolving in nature, and the Group has the ability to draw down short-term or long-term loans under them based on its financing needs. Each application to draw down loans is made by the Company or its subsidiary to the relevant commercial bank and is subject to customary loan approval and submission of qualification documentation. The Group's loan commitments are typically re-evaluated and adjusted by the relevant bank on a regular basis, such as annually or quarterly. In the past, neither the Company nor any of its subsidiaries has experienced any difficulties in obtaining loans under the loan commitments made by commercial banks in China. The Group also borrows loans from its related financial institutions.

The level of the Group's borrowings and its ability to obtain additional external financing on the existing terms, as well as any interest rate fluctuations and other borrowing costs, have had, and will continue to have, a material effect on its finance costs and, consequently, its results of operations and financial condition.

Tax Incentives

The Group's business has in the past benefited from various tax incentives, primarily in the form of preferential EIT rates and VAT rebate. Any reduction, discontinuation or unfavourable application of these preferential treatments could adversely affect the Group's results of operations.

Preferential EIT rates

Certain of the Group's projects benefitted from the following preferential EIT treatment: (i) a preferential income tax rate of 15.0% due to their locations in western China as supported by the "Go West" policy in China; and (ii) a three-year period of full EIT exemption commencing from the first year with operating revenue, followed by a three-year period of half EIT reduction.

VAT rebate

The Group's sales of electricity are currently subject to a VAT rate of 13.0% in China. The VAT rebate policy enjoyed by certain hydropower projects of the Group, which contributed to a large portion of the amount of VAT rebate historically, expired in 2017. Certain of the Group's projects engaging in the wind and solar power business receive a 50% VAT rebate from the VAT they paid.

Results of Associates

In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the Group's share of profits of associates was RMB631.2 million, RMB345.7 million, RMB521.5 million, RMB219.4 million and RMB426.3 million, respectively. The Group's share of profits of associates accounted for

8.0%, 5.3%, 6.3%, 7.1% and 10.4% of its net profit in 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, respectively. As a result, any significant change in the aggregate results of the Group's associates could ultimately affect the Group's net profit.

PRINCIPAL COMPONENTS OF CONSOLIDATED INCOME STATEMENTS

Revenue

The Group derives substantially all of its revenue from the sales of electricity to the local power grid companies where the Group operates. In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, almost all of the Group's revenue was generated from China. The following table sets forth a breakdown of the Group's revenue by segment for the periods indicated:

	Year ended 31 December						Six months ended 30 June			
	2016		2017		2018		2018		2019	
	Revenue	% of revenue	Revenue	% of revenue	Revenue	% of revenue	Revenue	% of revenue	Revenue	% of revenue
	(RMB in millions, except percentages)						(unaudited)			
Hydropower	17,925.6	61.2	17,743.1	56.1	19,660.9	47.9	8,081.1	45.4	8,247.6	42.1
Coal-fired power	10,485.6	35.8	12,666.0	40.0	19,523.2	47.6	8,765.2	49.3	10,125.7	51.6
Wind and solar power	501.8	1.7	749.2	2.4	1,180.8	2.9	663.7	3.7	853.1	4.4
Others[(1)]	357.8	1.2	484.8	1.5	646.5	1.6	276.5	1.6	383.1	1.9
Total	**29,270.8**	**100.0**	**31,643.1**	**100.0**	**41,011.4**	**100.0**	**17,786.5**	**100.0**	**19,609.5**	**100.0**

(1) The revenue from others business is mainly generated from heat supply, seawater desalination and sales of construction materials.

Cost of Sales

The Group's cost of sales mainly includes costs of raw materials including fuel for power generation, such as coal, and ordinary maintenance and repairs of power plants, depreciation of the Group's property, plant and equipment, and salaries and benefits. The following table sets forth a breakdown of the Group's cost of sales by nature for the periods indicated:

	Year ended 31 December						Six months ended 30 June			
	2016		2017		2018		2018		2019	
	Cost of sales	% of cost of sales	Cost of sales	% of cost of sales	Cost of sales	% of cost of sales	Cost of sales	% of cost of sales	Cost of sales	% of cost of sales
	(RMB in millions, except percentages)						(unaudited)			
Cost of raw materials	5,641.9	37.4	8,625.7	45.9	13,490.1	55.2	6,065.6	55.2	6,402.2	54.1
Depreciation and amortisation	6,021.0	39.9	6,524.7	34.7	7,093.9	29.0	3,346.9	30.5	3,618.3	30.6
Staff and labour costs	1,428.2	9.5	1,413.2	7.5	1,796.7	7.4	600.9	5.5	628.3	5.3
Repair expenses	730.2	4.8	763.1	4.1	986.9	4.0	246.9	2.2	305.9	2.6
Reservoir funds and water resource costs[(1)]	878.0	5.8	1,000.1	5.3	668.4	2.7	305.9	2.8	339.2	2.9
Others[(2)]	401.3	2.6	476.0	2.5	404.2	1.7	419.5	3.8	545.6	4.5
Total	**15,100.6**	**100.0**	**18,802.8**	**100.0**	**24,440.2**	**100.0**	**10,985.7**	**100.0**	**11,839.5**	**100.0**

(1) Certain reservoir funds and water resource costs relating to Yalong River power projects were reclassified to taxes and surcharges since December 2017.

(2) Others mainly includes processing costs for side products from coal-fired power generation, such as coal gangue, gypsum and fly ash.

The following table sets forth a breakdown of the Group's cost of sales by segment for the periods indicated:

	Year ended 31 December						Six months ended 30 June			
	2016		2017		2018		2018		2019	
	Cost of sales	% of cost of sales	Cost of sales	% of cost of sales	Cost of sales	% of cost of sales	Cost of sales	% of cost of sales	Cost of sales	% of cost of sales
	(RMB in millions, except percentages)						(unaudited)			
Hydropower	5,709.0	37.8	5,966.1	31.7	5,956.9	24.4	2,621.6	23.9	2,754.2	23.3
Coal-fired power	8,648.1	57.3	11,904.0	63.3	17,215.9	70.4	7,779.9	70.8	8,243.6	69.6
Wind and solar power	333.0	2.2	413.2	2.2	604.0	2.5	289.9	2.6	338.7	2.9
Others	410.5	2.7	519.5	2.8	663.4	2.7	294.3	2.7	503.0	4.2
Total	**15,100.6**	**100.0**	**18,802.8**	**100.0**	**24,440.2**	**100.0**	**10,985.7**	**100.0**	**11,839.5**	**100.0**

Gross Profit and Gross Profit Margin

The Group's gross profit represents its revenue less cost of sales. The Group's gross profit margin is calculated by dividing its gross profit by revenue. The table below sets forth a breakdown of the Group's gross profit by segment as well as the respective gross profit margins for the periods indicated:`

	Year ended 31 December									Six months ended 30 June					
	2016			2017			2018			2018			2019		
	Gross profit	% of gross profit	Gross profit margin	Gross profit	% of gross profit	Gross profit margin	Gross profit	% of gross profit	Gross profit margin	Gross profit	% of gross profit	Gross profit margin	Gross profit	% of gross profit	Gross profit margin
	(RMB in millions, except percentages)									(unaudited)					
Hydropower	12,216.6	86.2	68.2	11,777.0	91.8	66.4	13,704.0	82.7	69.7	5,459.5	80.3	67.6	5,493.4	70.7	66.6
Coal-fired power	1,837.5	13.0	17.5	762.0	5.9	6.0	2,307.3	13.9	11.8	985.3	14.5	11.2	1,882.1	24.2	18.6
Wind and solar power	168.8	1.2	33.6	336.0	2.6	44.8	576.8	3.5	48.8	373.8	5.5	56.3	514.4	6.6	60.3
Others(1)	(52.7)	(0.4)	(14.7)	(34.7)	(0.3)	(7.2)	(16.9)	(0.1)	(2.6)	(17.8)	(0.3)	(6.4)	(119.9)	(1.5)	(31.3)
Total	**14,170.2**	**100.0**	**48.4**	**12,840.3**	**100.0**	**40.6**	**16,571.2**	**100.0**	**40.4**	**6,800.8**	**100.0**	**38.2**	**7,770.0**	**100.0**	**39.6**

(1) The gross profit margin of the Group's other business was negative in 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, primarily due to significant depreciation of fixed assets related to seawater desalination business, resulting in cost higher than revenue.

The gross profit margin of the Group's hydropower business is generally higher than that of its coal-fired power business, mainly because the Group's hydropower projects do not incur any fuel costs. The fluctuations in the gross profit margin of the Group's coal-fired power business were primarily in relation to the fluctuations in the purchase price of coal. The Group's wind and solar power business experienced a general increase in gross profit margin, mainly reflecting improved transmission capacity and enhanced operational efficiency of new wind and solar power generation units in recent years.

Administrative Cost

The Group's administrative cost mainly includes staff and labour costs of administrative personnel, depreciation and amortisation relating to administrative property, plant and equipment, travel expenses, office and facility related costs, including lease and utility expenses, and fees for consultation and other professional services. The table below sets forth a breakdown of the Group's administrative cost by nature for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
	(RMB in millions)			(unaudited)	
Staff and labour costs	535.3	561.3	742.9	308.8	342.6
Amortisation of intangible assets	39.9	48.4	58.9	26.6	37.2
Depreciation and amortisation	37.4	49.3	43.4	25.4	24.5
Property management fees	25.7	26.6	34.7	9.1	11.3
Travel expenses	30.8	28.1	29.5	11.5	13.9
Consultation fees	31.4	33.8	27.1	11.3	14.2
Professional service fees	27.3	15.1	17.0	5.0	11.3
Office expenses	6.7	9.4	14.8	3.2	7.3
Lease expenses	11.2	16.4	14.1	7.3	9.1
Utility expenses	11.1	10.9	11.1	2.6	4.2
Others[(1)]	178.7	199.8	212.9	129.0	62.5
Total	**935.5**	**999.1**	**1,206.4**	**539.8**	**538.1**

(1) Others mainly includes organisation expenses relating to establishment of new subsidiaries and certain tax expenses before they were reclassified to taxes and surcharges since May 2016. Pursuant to the Regulations on Accounting Procedures of VAT (Accounting [2016] No. 22) (增值税会计处理规定（财会[2016]22号）) issued by the MOF on 3 December 2016, property tax, land use tax, vehicle and vessel usage tax and stamp duty arising from corporate operating activities shall be reclassified from "administrative cost" to "taxes and surcharges" since 1 May 2016, and taxes of the foregoing categories incurred before 1 May 2016 along with financial data for comparison need no adjustment.

Taxes and Surcharges

The Group's taxes and surcharges mainly represent expenses relating to property tax, land value tax, stamp duties and water resource tax. In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the Group's taxes and surcharges were RMB457.6 million, RMB563.6 million, RMB961.7 million, RMB391.8 million and RMB436.7 million, respectively.

Distribution Cost

The Group's distribution cost mainly represents transportation expenses relating to the sales of construction materials and labour costs of its sales personnel involved in the Group's other business. In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the Group's distribution cost were RMB6.0 million, RMB7.6 million, RMB6.6 million, RMB3.6 million and RMB1.8 million, respectively.

Impairment of Financial Assets

The Group's impairment of financial assets mainly includes loss on financial guarantee and impairment of account and other receivables. The Group measures loss allowances for trade receivables and contract assets at an amount equal to lifetime expected credit losses and recognises the impairment loss when the carrying amount exceeds the recoverable amount. The following table sets forth a breakdown of the Group's impairment of financial assets for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
	(RMB in millions)			(unaudited)	
Loss/(gain) on financial guarantee	516.2	(17.1)	(1.1)	—	—
Impairment loss/(gain) of account and other receivable	34.5	59.7	(4.6)	(77.8)	(86.0)
Total	**550.7**	**42.6**	**(5.7)**	**(77.8)**	**(86.0)**

Impairment of Property, Plant and Equipment, Inventory and Intangibles

The following table sets forth a breakdown of the Group's impairment of property, plant and equipment, inventory and intangibles for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
	(RMB in millions)			(unaudited)	
Impairment of property, plant and equipment	9.1	59.4	272.7	—	—
Impairment of intangibles	—	—	122.9	—	—
Impairment of inventory	5.9	—	6.1	—	—
Total	**15.0**	**59.4**	**401.7**	**—**	**—**

Other Income and Expense

The Group's other income and expense primarily consists of government grants, income or loss from disposal of fixed asset, and donation. The following table sets forth a breakdown of the Group's other income and expense for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
	(RMB in millions)			(unaudited)	
Government grants(1)	1,009.5	942.4	188.2	131.7	41.1
Income from disposal of fixed asset	—	3.3	4.8	1.7	0.9
Donation	(36.1)	(8.3)	(15.8)	(0.6)	(1.7)
Loss of disposal of fixed asset	(37.5)	(92.7)	(17.0)	(1.1)	(2.8)
Free of charge transfer(2)	—	—	(61.2)	—	—
Others(3)	10.3	33.8	72.8	6.6	36.5
Total	**946.2**	**878.5**	**171.8**	**138.3**	**74.0**

(1) Government grants include VAT rebates enjoyed by some projects of the Group. The VAT rebate policy enjoyed by certain hydropower projects expired in 2017. Certain of the Group's projects engaging in the wind and solar power business receive a 50% VAT rebate from the VAT they paid.

(2) Free of charge transfer relates to the transfer of residential utility infrastructure to local governments in 2018, which was built by the Group for workers who were relocated along with their families to neighbourhoods close to the sites of the Xiaosanxia power projects, Jingyuan Coal-fired Power Project, Dachaoshan Hydropower Project and Beibuwan Coal-fired Power Project, all of which had a relatively long operating history.
(3) Others mainly includes fair value of assets such as stocks and cash upon receipt indemnified to the Group under a counter guarantee.

Share of Profits of Associates

The Group's share of profits of associates primarily represents the share of net profits in connection with its investments in associates and jointly controlled entities. In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the Group's share of profits of associates was RMB631.2 million, RMB345.7 million, RMB521.5 million, RMB219.4 million and RMB426.3 million, respectively.

Finance Income

The Group's finance income represents interest income received on bank deposits. In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the Group's finance income was RMB56.8 million, RMB51.1 million, RMB86.0 million, RMB34.4 million and RMB72.7 million, respectively.

Finance Costs

The Group's finance costs primarily consist of interest expenses on loans. The following tables set forth a breakdown of the Group's finance costs for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
	(RMB in millions)				
				(unaudited)	
Interest expense on short-term loans	378.1	268.2	252.5	104.8	119.1
Interest expense on long-term loans	4,289.2	4,398.9	4,559.8	2,197.6	2,220.7
Interest expense on short-term bonds	134.3	75.9	47.4	23.1	5.0
Interest expense on long-term bonds	112.2	144.0	144.3	114.7	74.6
Finance lease	86.3	16.2	22.1	8.8	8.8
Net foreign exchange loss/(gain)	33.5	(30.4)	72.3	6.2	(8.1)
Others[1]	65.4	56.1	58.7	35.0	15.1
Total	5,099.0	4,928.9	5,157.1	2,490.2	2,435.2

(1) Others mainly include bank processing fees.

Income Tax Expense

Income tax expense comprises current tax and movements in deferred tax assets and liabilities. The Group is subject to income tax on an individual legal entity basis on profits arising in or derived from the tax jurisdictions in which the Company and its subsidiaries are domiciled or operate.

The Company and its subsidiaries located in China have been subject to EIT at the statutory tax rate of 25.0%, except that some of the subsidiaries and their projects were entitled to preferential tax treatments, mainly including the following:

(i) a preferential income tax rate of 15.0% due to their locations in western China as supported by the "Go West" policy in China, primarily applicable to power generation subsidiaries of the Group located in Gansu, Sichuan, Yunnan and Qinghai provinces and Xinjiang autonomous region; and

(ii) a three-year period of full EIT exemption commencing from the first year with operating revenue, followed by a three-year period of half EIT reduction, primarily applicable to hydropower, wind power and solar power projects.

In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the Group's effective tax rate was 11.9%, 12.7%, 14.0%, 16.6% and 15.4%, respectively. Meanwhile, the Group's subsidiary located in the United Kingdom, Redrock Investment Limited, is subject to a 19.0% corporate income tax, and the Group's subsidiary located in Singapore, Jaderock Investment Singapore Pte. Ltd., is subject to a 17.0% corporate income tax.

RESULTS OF OPERATIONS

The following table summarises the Group's results of operations for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
	(RMB in millions)				
				(unaudited)	
Continuing operations					
Revenue	29,270.8	31,643.1	41,011.4	17,786.5	19,609.5
Cost of sales	(15,100.6)	(18,802.8)	(24,440.2)	(10,985.7)	(11,839.5)
Gross profit	**14,170.2**	**12,840.3**	**16,571.2**	**6,800.8**	**7,770.0**
Administrative cost	(935.5)	(999.1)	(1,206.4)	(539.8)	(538.1)
Taxes and surcharges	(457.6)	(563.6)	(961.7)	(391.8)	(436.7)
Distribution cost	(6.0)	(7.6)	(6.6)	(3.6)	(1.8)
Impairment of financial assets	(550.7)	(42.6)	5.7	(77.8)	(86.0)
Impairment of property, plant and equipment, inventory and intangibles	(15.0)	(59.4)	(401.7)	—	—
Other income and expense	946.2	878.5	171.8	138.3	74.0
Operating profit	**13,151.6**	**12,046.5**	**14,172.3**	**5,926.1**	**6,781.4**
Share of profits of associates	631.2	345.7	521.5	219.4	426.3
Investment income/(loss)	176.5	(0.1)	0.5	0.5	—
Fair value movements on financial instrument measured at fair value through profit and loss	—	—	44.7	20.0	5.5
Finance income	56.8	51.1	86.0	34.4	72.7
Finance costs	(5,099.0)	(4,928.9)	(5,157.1)	(2,490.2)	(2,435.2)
Profit before tax from continuing operations	**8,917.1**	**7,514.3**	**9,667.9**	**3,710.2**	**4,850.7**
Income tax expense	(1,057.5)	(954.8)	(1,352.3)	(617.6)	(748.6)
Profit for the year/period from continuing operations	**7,859.6**	**6,559.5**	**8,315.6**	**3,092.6**	**4,102.1**
Profit for the year/period	**7,859.6**	**6,559.5**	**8,315.6**	**3,092.6**	**4,102.1**
Profit for the year attributable to:					
Owners of the Company	3,916.4	3,232.3	4,329.2	1,570.5	2,275.0
Non-controlling interests	3,943.2	3,327.2	3,986.4	1,522.1	1,827.1

The following discussion compares the major components of the Group's operating results in 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019.

Revenue

Comparisons between six months ended 30 June 2019 and 2018

The Group's total revenue increased by 10.2% from RMB17,786.5 million in the six months ended 30 June 2018 to RMB19,609.5 million in the same period of 2019, primarily due to an increase in the segment revenue from coal-fired power business.

Segment revenue of the Group's hydropower business increased by 2.1% from RMB8,081.1 million in the six months ended 30 June 2018 to RMB8,247.6 million in the same period of 2019, primarily due to an increase in the electricity generation from Dachaoshan Hydropower Project, due to favourable hydrological conditions.

Segment revenue of the Group's coal-fired power business increased by 15.5% from RMB8,765.2 million in the six months ended 30 June 2018 to RMB10,125.7 million in the same period of 2019, primarily due to a 14.5% increase in the coal-fired power generation from 27,594.9 GWh in the six months ended 30 June 2018 to 31,596.7 GWh in the same period of 2019, primarily attributable to increased installed capacity of the Group's coal-fired power projects after the full commercial operation of additional units of Beijiang Coal-fired Power Project in June 2018.

Segment revenue of the Group's wind and solar power business increased by 28.5% from RMB663.7 million in the six months ended 30 June 2018 to RMB853.1 million in the same period of 2019, primarily due to a 55.6% increase in wind and solar power generation from 1,124.5 GWh in the six months ended 30 June 2018 to 1,749.5 GWh in the same period of 2019, mainly attributable to increased installed capacity of wind and solar power projects after the acquisitions of Yunnan Metallurgical New Energy and Toksun Tianhe.

Segment revenue of the Group's other business increased by 38.6% from RMB276.5 million in the six months ended 30 June 2018 to RMB383.1 million in the same period of 2019, primarily due to an expansion of the Group's heat supply business.

Comparisons between 2018 and 2017

The Group's total revenue increased by 29.6% from RMB31,643.1 million in 2017 to RMB41,011.4 million in 2018, primarily due to increases in the segment revenue from coal-fired power and hydropower businesses.

Segment revenue of the Group's hydropower business increased by 10.8% from RMB17,743.1 million in 2017 to RMB19,660.9 million in 2018, primarily due to: (i) an increase in the electricity generation volume from hydropower projects in the Yalong River and Xiaosanxia areas, due to favourable hydrological conditions; and (ii) an increase in the on-grid tariff for Dachaoshan Hydropower Project as a result of government policy adjustment.

Segment revenue of the Group's coal-fired power business increased by 54.1% from RMB12,666.0 million in 2017 to RMB19,523.2 million in 2018, primarily due to an increase in electricity sales from coal-fired power business, in line with a 47.4% increase in the power generation volume from coal-fired power from 41,259.0 GWh in 2017 to 60,799.6 GWh in 2018, primarily attributable to: (i) increased installed capacity of the Group's coal-fired power projects after the full commercial operation of additional units of Beijiang Coal-fired Power Project in June 2018 and

Meizhouwan II Coal-fired Power Project in September 2017; and (ii) increased demand for electricity consumption in 2018. The increase in the segment revenue was also due to an increase in the average on-grid tariff for the Group's coal-fired power business, primarily attributable to an increase in the local benchmark price.

Segment revenue of the Group's wind and solar power business increased by 57.6% from RMB749.2 million in 2017 to RMB1,180.8 million in 2018, primarily due to a 44.7% increase in power generation volume from wind and solar power from 1,699.7 GWh in 2017 to 2,460.0 GWh in 2018. This increase was primarily attributable to: (i) increased installed capacity of wind and solar power projects after the commencement of operation of Yandun Wind Power Project, Jingxia Wind Power Project, Qinghai II Wind Power Project and Dongchuan II Wind Power Project, and the acquisition of Yunnan Metallurgical New Energy along with its solar power plant; and (ii) improved transmission capacity of local power grids.

Segment revenue of the Group's other business increased by 33.4% from RMB484.8 million in 2017 to RMB646.5 million in 2018, primarily due to an expansion of the Group's heat supply business.

Comparisons between 2017 and 2016

The Group's total revenue increased by 8.1% from RMB29,270.8 million in 2016 to RMB31,643.1 million in 2017, primarily due to increases in the segment revenue from coal-fired power and wind and solar power businesses.

Segment revenue of the Group's hydropower business in 2016 was RMB17,925.6 million and RMB17,743.1 million in 2017, which remained relatively stable.

Segment revenue of the Group's coal-fired power business increased by 20.8% from RMB10,485.6 million in 2016 to RMB12,666.0 million in 2017, primarily due to an increase in electricity sales from coal-fired power business. Such increase was mainly a result of: (i) a 13.9% increase in the power generation volume from coal-fired power from 36,233.8 GWh in 2016 to 41,259.0 GWh in 2017, primarily attributable to increased installed capacity of the Group's coal-fired power projects, after the full commercial operation of Meizhouwan II Coal-fired Power Project in September 2017 and Qinzhou Coal-fired Power Project in September 2016; and (ii) an increase in the average on-grid tariff for the Group's coal-fired power business, primarily attributable to an increase in the local benchmark price.

Segment revenue of the Group's wind and solar power business increased by 49.3% from RMB501.8 million in 2016 to RMB749.2 million in 2017, primarily due to (i) a 64.2% increase in power generation volume from wind and solar power projects from 1,035.0 GWh in 2016 to 1,699.7 GWh in 2017, attributable to increased installed capacity of the Group's wind and solar power projects after the commencement of operation of Dongchuan II Wind Power Project, Wuding Wind Power Project, Qinghai II Wind Power Project, Yandun Wind Power Project, Jingxia Wind Power Project, and the acquisition of Huili Solar Power Project and Mianning Solar Power Project; and (ii) improved transmission capacity of local power grids.

Segment revenue of the Group's other business increased by 35.5% from RMB357.8 million in 2016 to RMB484.8 million in 2017, primarily due to an expansion of the Group's heat supply business.

Cost of Sales

Comparisons between six months ended 30 June 2019 and 2018

The Group's cost of sales increased by 7.8% from RMB10,985.7 million in the six months ended 30 June 2018 to RMB11,839.5 million in the same period of 2019, primarily due to an increase in total cost of raw materials, particularly coal, largely due to an increase in the volume of raw materials consumed, reflecting the increase in the power generation volume from coal-fired power projects during the period.

Comparisons between 2018 and 2017

The Group's cost of sales increased by 30.0% from RMB18,802.8 million in 2017 to RMB24,440.2 million in 2018, primarily due to: (i) an increase of cost of raw materials, particularly coal, where the average price of standard coal (7,000 kcal/kg) per tonne that the Group purchased increased from RMB638 per tonne in 2017 to RMB698 per tonne in 2018; (ii) increased depreciation as the Group's installed capacity expanded; and (iii) an increase in staff and labour costs relating to operations personnel, mainly as a result of increased level of compensation and number of employees in line with the business expansion.

Comparisons between 2017 and 2016

The Group's cost of sales increased by 24.5% from RMB15,100.6 million in 2016 to RMB18,802.8 million in 2017, primarily due to: (i) an increase of cost of raw materials, particularly coal, where the average price of standard coal (7,000 kcal/kg) per tonne that the Group purchased increased from RMB452 per tonne in 2016 to RMB638 per tonne in 2017; and (ii) increased depreciation as the Group's installed capacity expanded.

Gross Profit and Gross Profit Margin

Comparisons between six months ended 30 June 2019 and 2018

The Group's gross profit increased by 14.3% from RMB6,800.8 million in the six months ended 30 June 2018 to RMB7,770.0 million in the same period of 2019 as a result of the foregoing.

The Group's gross profit margin increased from 38.2% in the six months ended 30 June 2018 to 39.6% in the same period of 2019. The gross profit margin of the Group's hydropower business remained relatively stable at 67.6% and 66.6% in the six months ended 30 June 2018 and 2019, respectively. The gross profit margin of the Group's coal-fired power business increased from 11.2% in the six months ended 30 June 2018 to 18.6% in the same period of 2019, mainly due to increased economies of scale as a result of an increase in the power generation volume from coal-fired power in response to an increase in demand for electricity consumption, and a decrease in coal price in the six months ended 30 June 2019 compared to that in the same period of 2018. The gross profit margin of the Group's wind and solar power business increased from 56.3% in the six months ended 30 June 2018 to 60.3% in the same period of 2019, mainly due to improved transmission capacity and enhanced operational efficiency of new wind and solar power generation units.

Comparisons between 2018 and 2017

The Group's gross profit increased by 29.1% from RMB12,840.3 million in 2017 to RMB16,571.2 million in 2018 as a result of the foregoing.

The Group's gross profit margin remained stable at 40.6% in 2017 and 40.4% in 2018. The gross profit margin of the Group's hydropower business increased from 66.4% in 2017 to 69.7% in 2018, mainly due to an increase in segment revenue of this business attributable to favourable hydrological conditions, while its cost of sales remained relatively stable. The gross profit margin of the Group's coal-fired power business increased from 6.0% in 2017 to 11.8% in 2018, mainly due to increased economies of scale as a result of an increase in the power generation volume from coal-fired power in response to increased demand for electricity consumption, and to increased operational efficiency in light of the launch of new units, resulting in a decrease in the average coal consumption per power generation unit. The gross profit margin of the Group's wind and solar power business increased from 44.8% in 2017 to 48.8% in 2018, mainly due to improved transmission capacity and enhanced operational efficiency of new wind and solar power generation units. Despite the foregoing increased segment gross profit margins, as the revenue contribution of the Group's coal-fired power business, which has a relatively lower profit margin than hydropower and wind and solar power businesses, increased in 2018 compared to 2017, the Group's gross profit margin decreased slightly as a result.

Comparisons between 2017 and 2016

The Group's gross profit decreased by 9.4% from RMB14,170.2 million in 2016 to RMB12,840.3 million in 2017 as a result of the foregoing.

The Group's gross profit margin decreased from 48.4% in 2016 to 40.6% in 2017. The gross profit margin of the Group's hydropower business remained relatively stable at 68.2% in 2016 and 66.4% in 2017. The gross profit margin of the Group's coal-fired power business decreased from 17.5% in 2016 to 6.0% in 2017, mainly due to increased cost of coal consumption affected by the increased coal price. The gross profit margin of the Group's wind and solar power business increased from 33.6% in 2016 to 44.8% in 2017, mainly due to improved transmission capacity and enhanced operational efficiency of new wind and solar power generation units.

Administrative Cost

Comparisons between six months ended 30 June 2019 and 2018

The Group's administrative cost remained relatively stable at RMB539.8 million and RMB538.1 million in the six months ended 30 June 2018 and 2019, respectively.

Comparisons between 2018 and 2017

The Group's administrative cost increased by 20.7% from RMB999.1 million in 2017 to RMB1,206.4 million in 2018, primarily due to: (i) accounting recognition of certain one-off expenses in relation to construction in progress, which had no direct bearing on capital expenditures, as part of administrative cost after the launch of power generation units; and (ii) an increase in staff and labour costs relating to the Group's administrative personnel, mainly as a result of increased level of compensation and number of employees in line with the business expansion.

Comparisons between 2017 and 2016

The Group's administrative cost increased by 6.8% from RMB935.5 million in 2016 to RMB999.1 million in 2017, primarily due to accounting recognition of certain one-off expenses in relation to construction in progress, which had no direct bearing on capital expenditures, as part of administrative cost after the launch of power generation units.

Taxes and surcharges

Comparisons between six months ended 30 June 2019 and 2018

The Group's taxes and surcharges increased by 11.5% from RMB391.8 million in the six months ended 30 June 2018 to RMB436.7 million in the same period of 2019, primarily due to increased property tax and land use tax charges, mainly in line with the Group's expanded scale of power generation facilities.

Comparisons between 2018 and 2017

The Group's taxes and surcharges increased by 70.6% from RMB563.6 million in 2017 to RMB961.7 million in 2018, primarily because of the reclassification of water resource taxes from cost of sales in December 2017, due to changes in accounting policies arising from changes in government regulations.

Comparisons between 2017 and 2016

The Group's taxes and surcharges increased by 23.2% from RMB457.6 million in 2016 to RMB563.6 million in 2017, primarily due to: (i) one-off charges by the local government in Guangxi autonomous region in relation to Qinzhou Coal-fired Power Project in accordance with relevant local requirements; and (ii) the reclassification of stamp duties and property and other taxes from administrative costs in May 2016, due to changes in accounting policies arising from changes in government regulations.

Distribution cost

Comparisons between six months ended 30 June 2019 and 2018

The Group's distribution cost decreased by 50.0% from RMB3.6 million in the six months ended 30 June 2018 to RMB1.8 million in the same period of 2019, primarily due to decreased transportation costs borne by the Group in its sales of construction materials as buyers began to bear the shipping costs after sale arrangement changes.

Comparisons between 2018 and 2017

The Group's distribution cost decreased by 13.2% from RMB7.6 million in 2017 to RMB6.6 million in 2018, primarily due to decreased transportation costs borne by the Group in its sales of construction materials as buyers began to bear the shipping costs after sale arrangement changes.

Comparisons between 2017 and 2016

The Group's distribution cost increased by 26.7% from RMB6.0 million in 2016 to RMB7.6 million in 2017, primarily due to increased transportation costs attributable to increased sales of construction materials in the Group's other business.

Impairment of financial assets

Comparisons between six months ended 30 June 2019 and 2018

The Group's impairment of financial assets increased by 10.5% from RMB77.8 million in the six months ended 30 June 2018 to RMB86.0 million in the same period of 2019, primarily in line with the increase in the Group's trade receivables.

Comparisons between 2018 and 2017

The Group had impairment of financial assets of RMB42.6 million in 2017 and reversal of impairment of financial assets of RMB5.7 million in 2018, primarily because the Group's accounting estimates changed, and the Group re-assessed its impairment of receivables based on expected credit loss rather than turnover days, which was partially offset by overdue trade receivables in relation to the Group's seawater desalination business.

Comparisons between 2017 and 2016

The Group's impairment of financial assets decreased by 92.3% from RMB550.7 million in 2016 to RMB42.6 million in 2017, primarily due to: (i) the one-time guarantee loss incurred in 2016, associated with a guarantee provided for a finance lease of SDIC Qujing Power Generation Co., Ltd. (国投曲靖发电有限公司) in the course of disposing such subsidiary in 2014; and (ii) overdue trade receivables in relation to the Group's seawater desalination business in 2016.

Impairment of Property, Plant and Equipment, Inventory and Intangibles

Comparisons between six months ended 30 June 2019 and 2018

The Group's impairment of property, plant and equipment, inventory and intangibles was nil in the six months ended 30 June 2018 and 2019.

Comparisons between 2018 and 2017

The Group's impairment increased significantly from RMB59.4 million in 2017 to RMB401.7 million in 2018, primarily due to an increase in the impairment of property, plant and equipment, mainly relating to adverse results of operations of Jingyuan Second Power and Fujian Pacific.

Comparisons between 2017 and 2016

The Group's impairment increased significantly from RMB15.0 million in 2016 to RMB59.4 million in 2017, primarily due to the re-assessment of obsolete power generation equipment in the course of Qinzhou Coal-fired Power Project and Beibuwan Power Project upgrades in 2017.

Other Income and Expense

Comparisons between six months ended 30 June 2019 and 2018

The Group's other income and expense decreased by 46.5% from RMB138.3 million in the six months ended 30 June 2018 to RMB74.0 million in the same period of 2019, primarily due to a decrease in government grants, resulting from the expiry of certain VAT rebate policies that were enjoyed by the Group up to December 2018.

Comparisons between 2018 and 2017

The Group's other income and expense decreased by 80.4% from RMB878.5 million in 2017 to RMB171.8 million in 2018, primarily due to a substantial decrease in government grants, resulting from the expiry of certain VAT rebate policies that were enjoyed by the Group up to 2017.

Comparisons between 2017 and 2016

The Group's other income and expense decreased by 7.2% from RMB946.2 million in 2016 to RMB878.5 million in 2017, primarily due to: (i) a decrease in government grants in relation to reduced VAT refund in relation to changes in VAT policies; and (ii) an increase in loss of disposal of fixed assets in relation to upgrades of the Group's coal-fired power projects.

Share of Profits of Associates

Comparisons between six months ended 30 June 2019 and 2018

The Group's share of profits of associates increased by 94.3% from RMB219.4 million in the six months ended 30 June 2018 to RMB426.3 million in the same period of 2019, as the coal-fired power companies invested by the Group and its associates performed better in the six months ended 30 June 2019 as compared to the same period of 2018.

Comparisons between 2018 and 2017

The Group's share of profits of associates increased by 50.9% from RMB345.7 million in 2017 to RMB521.5 million in 2018, primarily because: (i) the Group's investment gains increased, as the coal-fired power companies in which the Group invested were profit making in 2018, recovering from losses in 2017; and (ii) the Group acquired equity interests in a renewable energy power company, Hanlan Environment Co., Ltd. (瀚蓝环境股份有限公司) in 2018, and recognised investment gain in the same year.

Comparisons between 2017 and 2016

The Group's share of profits of associates decreased by 45.2% from RMB631.2 million in 2016 to RMB345.7 million in 2017, primarily because the coal-fired power companies in which the Group invested experienced losses in 2017, mainly attributable to an increase in coal price.

Investment Income/(Loss)

The Group did not generate any investment income or loss in the six months ended 30 June 2019. The Group had investment income of RMB0.5 million in the six months ended 30 June 2018, primarily relating to the Group's disposal of a heat supply company.

The Group had investment income of RMB0.5 million in 2018 and investment loss of RMB0.1 million in 2017, primarily relating to the Group's disposal of a heat supply company in each year.

The Group had investment income of RMB176.5 million in 2016, primarily because: (i) the Group recognised disposal gains as the Group's investments measured at cost were reclassified to associates using the equity method; and (ii) the Group received dividends payment from SDIC Finance Co., Ltd. (国投财务股份有限公司).

Fair Value Movements on Financial Instrument Measured at Fair Value through Profit and Loss

The Group had fair value movements on financial instrument measured at fair value through profit and loss of RMB44.7 million, RMB20.0 million and RMB5.5 million in 2018 and the six months ended 30 June 2018 and 2019, respectively, primarily in relation to the Group's investment in the exchangeable bond issued by Zhejiang Provincial Energy Group Co., Ltd. (浙江省能源集团有限公司).

Finance Income

Comparisons between six months ended 30 June 2019 and 2018

The Group's finance income increased substantially from RMB34.4 million in the six months ended 30 June 2018 to RMB72.7 million in the same period of 2019, primarily due to interest income generated from a shareholder loan extended to Beatrice Offshore Windfarm Ltd. in the latter half of 2018.

Comparisons between 2018 and 2017

The Group's finance income increased by 68.3% from RMB51.1 million in 2017 to RMB86.0 million in 2018, primarily due to an increase in the average balance of the Group's bank deposits.

Comparisons between 2017 and 2016

The Group's finance income decreased by 10.0% from RMB56.8 million in 2016 to RMB51.1 million in 2017, primarily due to a decrease in the average balance of the Group's bank deposits.

Finance Costs

Comparisons between six months ended 30 June 2019 and 2018

The Group's finance costs remained relatively stable at RMB2,490.2 million and RMB2,435.2 million in the six months ended 30 June 2018 and 2019, respectively.

Comparisons between 2018 and 2017

The Group's finance costs increased by 4.6% from RMB4,928.9 million in 2017 to RMB5,157.1 million in 2018, primarily due to an increase in the average balance of the Group's interest-bearing borrowings.

Comparisons between 2017 and 2016

The Group's finance costs decreased by 3.3% from RMB5,099.0 million in 2016 to RMB4,928.9 million in 2017, primarily due to a decrease in the average balance of the Group's interest-bearing borrowings.

Income Tax Expense

Comparisons between six months ended 30 June 2019 and 2018

The Group's income tax expense increased by 21.2% from RMB617.6 million in the six months ended 30 June 2018 to RMB748.6 million in the same period of 2019, primarily in line with the increase in the Group's taxable income. The Group's effective tax rate decreased from 16.6% in the six months ended 30 June 2018 to 15.4% in the same period of 2019, primarily due to greater revenue contribution of the wind and solar power business where a number of wind and solar power projects enjoyed preferential tax treatment.

Comparisons between 2018 and 2017

The Group's income tax expense increased by 41.6% from RMB954.8 million in 2017 to RMB1,352.3 million in 2018, primarily in line with the increase in the Group's taxable income. The Group's effective tax rate increased from 12.7% in 2017 to 14.0% in 2018, primarily because the full EIT exemptions previously enjoyed by certain hydropower, wind power and solar power projects were replaced by a half EIT reduction.

Comparisons between 2017 and 2016

The Group's income tax expense decreased by 9.7% from RMB1,057.5 million in 2016 to RMB954.8 million in 2017, primarily in line with the decrease in the Group's taxable income. The Group's effective tax rate increased from 11.9% in 2016 to 12.7% in 2017, primarily because the full EIT exemptions previously enjoyed by certain hydropower projects and wind and solar power projects were replaced by a half EIT reduction.

LIQUIDITY AND CAPITAL RESOURCES

Overview

To date, the Group has primarily financed its business operations through cashflow generated from operating activities, bank and related party loans, issuance of bonds and capital contributions from shareholders. The Group's cash requirements primarily include capital expenditures to fund its business expansion and requirements for daily operations.

Cash Flows

The following table sets forth the selected cash flow statement information for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	**2017**	**2018**	**2018**	**2019**
			(RMB in millions)	(unaudited)	
Net cash flows generated from operating activities	19,009.7	18,089.9	19,132.9	7,514.5	8,918.4
Net cash flows from investing activities brought forward	(23,425.0)	(11,125.3)	(13,616.4)	(6,197.7)	(5,227.2)
Net cash generated from/(used in) financing activities	2,441.8	(6,138.3)	(3,025.3)	2,714.4	(3,204.6)
Net (decrease)/increase in cash and cash equivalents	(1,973.5)	826.3	2,491.2	4,031.2	486.6
Cash and cash equivalents at the beginning of year/period	6,123.4	4,154.3	4,972.4	4,972.4	7,470.0
Exchange gain/(loss) on cash and cash equivalents	4.4	(8.2)	6.4	(2.9)	8.4
Cash and cash equivalents at the end of year/period	**4,154.3**	**4,972.4**	**7,470.0**	**9,000.7**	**7,965.0**

Operating activities

Cash flow from operating activities reflects: (i) profit before tax adjusted for non-cash and non-operating items, such as depreciation and amortisation and impairment allowance; (ii) the effects of movements in working capital, such as increases or decreases in trade and other receivable, trade and other payables, inventories, provisions and employee benefit; and (iii) other cash items such as income tax paid.

In the six months ended 30 June 2019, the Group had net cash generated from operating activities of RMB8,918.4 million, resulting from its profit before income tax of RMB4,850.7 million, adjusted by non-cash and non-operating items and movements in working capital. The Group's movements in working capital were primarily due to: (i) a decrease in trade and other payables of RMB786.6 million, mainly because certain payables for coal not settled before year end of 2018 were settled in the first half of 2019; and (ii) an increase in trade and other receivables of RMB192.0 million, mainly in line with the Group's revenue growth.

In the six months ended 30 June 2018, the Group had net cash generated from operating activities of RMB7,514.5 million, resulting from its profit before income tax of RMB3,710.2 million, adjusted by non-cash and non-operating items and movements in working capital. The Group's movements in working capital were primarily due to: (i) an increase in trade and other receivables of RMB793.1 million, mainly in line with the Group's revenue growth; (ii) an increase in inventories of RMB299.7 million, mainly as a result of increased inventory of coal to accommodate the Group's increased coal-fired power generation; and (iii) a decrease in trade and other payables of RMB232.5 million, mainly as a result of settlement of payments for coal.

In 2018, the Group had net cash generated from operating activities of RMB19,132.9 million, resulting from its profit before income tax of RMB9,667.9 million, adjusted by non-cash and non-operating items and movements in working capital. The Group's movements in working capital were primarily due to: (i) an increase in trade and other receivables of RMB1,638.9 million, mainly due to the acquisition and consolidation of Yunnan Metallurgical New Energy in 2018, and the increased receivables of subsidies for renewable energy projects, reflecting the general increase of the Group's revenue from power generation; and (ii) an increase in inventories of RMB333.5 million, mainly as a result of increased inventory of coal to accommodate the Group's increased coal-fired installed capacity. Such movements were partially offset by an increase in trade and other payables of RMB725.8 million, primarily due to increased coal purchases in line with increased power generation from coal-fired power.

In 2017, the Group had net cash generated from operating activities of RMB18,089.9 million, resulting from its profit before income tax of RMB7,514.3 million, adjusted by non-cash and non-operating items and movements in working capital. The Group's movements in working capital were primarily due to an increase in trade and other payables of RMB1,735.4 million, mainly as a result of an increase in the Group's payables for coal purchases, due to increased coal price and the full commercial operation of Meizhouwan II Coal-fired Power Project in the year. Such movements were partially offset by: (i) an increase in trade and other receivables of RMB1,033.9 million, mainly as a result of an increase in receivables of electricity generated due to the full commercial operation of Meizhouwan II Coal-fired Power Project, and the increased receivables of subsidies for renewable energy projects; (ii) a decrease in provisions of RMB143.4 million, mainly as a result of the repayment of provisioned liabilities in relation to the Group's guarantee of a finance lease of SDIC Qujing Power Generation Co., Ltd. (国投曲靖发电有限公司); and (iii) an increase in inventories of RMB115.1 million, mainly as a result of increased purchases of coal to fuel the Group's Meizhouwan II Coal-fired Power Project which commenced full commercial operation in September 2017 and an increase in coal price.

In 2016, the Group had net cash generated from operating activities of RMB19,009.7 million, resulting from its profit before income tax of RMB8,917.1 million, adjusted by non-cash and non-operating items and movements in working capital. The Group's movements in working capital were primarily due to: (i) an increase in provisions of RMB426.6 million, mainly as a result of guarantee provided for a finance lease of SDIC Qujing Power Generation Co., Ltd. (国投曲靖发电有限公司); and (ii) a decrease in trade and other receivables of RMB226.2 million, mainly in line with the decrease in revenue compared to 2015. Such movements were partially offset by an increase in inventories of RMB222.7 million, mainly as a result of increased coal purchases for the Group's Qinzhou Coal-fired Power Project which commenced full commercial operation in September 2016.

Investing activities

The Group's cash outflows from investing activities primarily consist of purchases of property, plant and equipment, purchases of associates, purchase of intangibles, as well as acquisition of subsidiaries. The Group's cash inflow from investing activities consists primarily of dividends from associates and interest received.

In the six months ended 30 June 2019, the Group had net cash used in investing activities of RMB5,227.2 million, primarily due to purchases of property, plant and equipment of RMB4,701.0 million, mainly relating to development of power projects and construction of new power plants.

In the six months ended 30 June 2018, the Group had net cash used in investing activities of RMB6,197.7 million, primarily due to: (i) purchases of property, plant and equipment of RMB3,640.8 million, mainly relating to development of power projects and construction of new power plants; and (ii) prepayments for acquisitions of subsidiaries of RMB1,038.3 million, mainly relating to prepayments made for the acquisition of Afton Wind Farm Limited.

In 2018, the Group had net cash used in investing activities of RMB13,616.4 million, primarily due to: (i) purchases of property, plant and equipment of RMB10,189.3 million, mainly relating to development of power projects and construction of new power plants; (ii) purchases of associates of RMB1,485.1 million, mainly as a result of acquisition of equity interests in Hanlan Environment Co., Ltd. (瀚蓝环境股份有限公司) and an additional investment in Beatrice Offshore Windfarm Ltd.; and (iii) net cash used in acquisition of subsidiary of RMB943.8 million, mainly as a result of the acquisitions of Afton Wind Farm Limited and Yunnan Metallurgical New Energy.

In 2017, the Group had net cash used in investing activities of RMB11,125.3 million, primarily due to purchases of property, plant and equipment of RMB11,615.1 million, mainly relating to development of power projects and construction of new power plants.

In 2016, the Group had net cash used in investing activities of RMB23,425.0 million, primarily due to: (i) purchases of property, plant and equipment of RMB17,198.8 million, mainly relating to development of power projects and construction of new power plants; (ii) purchases of associates of RMB5,001.1 million, mainly in relation to the investments in Jiangxi Ganneng Co., Ltd. (江西赣能股份有限公司) and Lestari Listrik Pte. Ltd., and an additional investment in SDIC Finance Co., Ltd. (国投财务股份有限公司); and (iii) net cash of RMB1,425.7 million used in acquisition of Red Rock Power Limited.

Financing activities

The Group's financing activities primarily include issuance of new shares and debt instruments, proceeds from loans and borrowings, distribution of dividends to shareholders, and repayment of principal and interests on debts.

In the six months ended 30 June 2019, the Group had net cash used in financing activities of RMB3,204.6 million, primarily due to: (i) repayment of loans and borrowings of RMB18,934.1 million; (ii) interest paid on loans and borrowings of RMB3,170.3 million; and (iii) dividends paid to non-controlling interests of RMB1,551.3 million. Such cash outflows were partially offset by proceeds from loans and borrowings of RMB20,166.5 million.

In the six months ended 30 June 2018, the Group had net cash generated from financing activities of RMB2,714.4 million, primarily due to: (i) proceeds from loans and borrowings of RMB17,025.8 million; and (ii) issue of other equity instruments of RMB1,999.6 million. Such cash inflows were partially offset by: (i) repayment of loans and borrowings of RMB11,629.1 million; (ii) interest paid on loans and borrowings of RMB3,025.1 million; and (iii) dividends paid to non-controlling interests of RMB2,200.2 million.

In 2018, the Group had net cash used in financing activities of RMB3,025.3 million, primarily due to: (i) repayment of loans and borrowings of RMB26,678.2 million; and (ii) interest paid on loans and borrowings of RMB6,304.7 million. Such cash outflows were partially offset by: (i) proceeds from loans and borrowings of RMB28,586.6 million; (ii) issue of other equity instruments of RMB3,999.2 million; and (iii) issue of ordinary shares by certain subsidiaries of the Group to non-controlling interests of RMB1,499.5 million.

In 2017, the Group had net cash used in financing activities of RMB6,138.3 million, primarily due to: (i) repayment of loans and borrowings of RMB27,239.4 million; (ii) interest paid on loans and borrowings of RMB5,917.0 million; and (iii) dividends paid to non-controlling interests of RMB3,358.2 million. Such cash outflows were partially offset by: (i) proceeds from loans and borrowings of RMB29,839.6 million; and (ii) issue of ordinary shares by certain subsidiaries of the Group to non-controlling interests of RMB1,954.1 million.

In 2016, the Group had net cash generated from financing activities of RMB2,441.8 million, primarily due to: (i) proceeds from loans and borrowings of RMB42,582.7 million; and (ii) issue of ordinary shares by certain subsidiaries of the Group to non-controlling interests of RMB3,031.0 million. Such cash inflows were partially offset by: (i) repayment of loans and borrowings of RMB31,887.6 million; (ii) interest paid on loans and borrowings of RMB5,640.1 million; and (iii) dividends paid to non-controlling interests of RMB3,720.8 million.

Indebtedness

The Group's indebtedness mainly consists of bank and related party loans and corporate bonds. The table below sets forth the Group's indebtedness as at the dates indicted:

	As at 31 December			As at 30 June
	2016	2017	2018	2019
	(RMB in millions)			(unaudited)
Loans(1)	119,240.6	126,595.8	131,343.7	133,012.3
Bonds(2)	7,500.0	4200.0	5,000.0	5,399.9
Amount due to non-controlling interests	520.0	489.9	514.6	274.9
Lease liabilities(3)	2,666.9	1,372.5	434.5	480.7
Total	**129,927.5**	**132,658.2**	**137,292.8**	**139,167.8**

(1) This comprises long-term loans, short-term loans and current portion of long-term loans.
(2) This comprises long-term bonds, short-terms bonds and current portion of long-term bonds.
(3) This comprises the current and non-current portions of lease liabilities.

Loans

The following table sets forth the breakdown of the Group's loans as at the dates indicated:

	As at 31 December			As at 30 June
	2016	2017	2018	2019
	(RMB in millions)			(unaudited)
Long-term loans[1]				
Secured loans	8,916.9	9,879.3	11,904.2	12,179.1
Guaranteed loans	8,974.3	7,062.3	4,098.8	422.2
Unsecured loans	93,431.5	104,912.9	109,576.6	114,176.1
Subtotal	**111,322.7**	**121,854.5**	**125,579.6**	**126,777.4**
Short-term loans				
Secured loans	454.3	55.0	175.0	215.0
Unsecured loans	7,463.6	4,686.3	5,589.1	6,019.9
Subtotal	**7,917.9**	**4,741.3**	**5,764.1**	**6,234.9**
Total	**119,240.6**	**126,595.8**	**131,343.7**	**133,012.3**

(1) Long-term loans and the breakdown of long-term loans take into account the current portion of long-term loans.

The Group's loans increased by 1.3% from RMB131,343.7 million as at 31 December 2018 to RMB133,012.3 million as at 30 June 2019, increased by 3.8% from RMB126,595.8 million as at 31 December 2017 to RMB131,343.7 million as at 31 December 2018, and increased by 6.2% from RMB119,240.6 million as at 31 December 2016 to RMB126,595.8 million as at 31 December 2017, primarily due to increased capital requirements to support its expansion.

As at 30 June 2019, the Group had total loans of RMB133,012.3 million, mainly comprising loans from commercial banks and other financial institutions, and loans from related parties such as SDIC Finance Co., Ltd. (国投财务有限公司) and SDIC, which were typically unsecured with prevailing market interest rates.

Long-term loans

The Group generally incurs long-term loans on a project basis to fund its business expansion and capital requirements. All of its material long-term loans, are at variable rates varying from 3.7% to 6.2%. As at 31 December 2016, 2017 and 2018 and 30 June 2019, the Group's long-term loans were RMB111,322.7 million, RMB121,854.5 million, RMB125,579.6 million and RMB126,777.4 million, respectively, among which 5.5%, 10.3%, 13.0% and 12.7% were from related parties as at the same dates, respectively.

Short-term loans

The Group generally incurs short-term loans to replenish its daily working capital and repay its current liabilities. Its short-term loans are generally at fixed rates. As at 31 December 2016, 2017 and 2018 and 30 June 2019, the Group's short-term loans amounted to RMB7,917.9 million, RMB4,741.3 million, RMB5,764.1 million and RMB6,234.9 million, respectively, among which 31.7%, 28.7%, 23.7% and 19.5% were from related parties as at the same dates, respectively.

Bonds

The Group's bonds issued comprise corporate bonds and medium-term notes. The following table sets forth some details on the Group's outstanding bonds as at 30 June 2019:

Issuer	Principal Amount	Date of Issuance	Maturity	Coupon Rate
	(RMB in billions)			(%)
The Company	0.7	October 2016	5 years	3.10
The Company	0.5	November 2016	5 years	3.32
The Company	1.2	June 2019	10 years	4.59
Yalong River Hydropower	1.0	April 2018	5 years	4.50
Yalong River Hydropower	1.0	May 2018	240 days	4.67
Yalong River Hydropower	1.0	April 2019	5 years	3.93

Note: The Company issued three tranches of perpetual bonds in March, May and July 2018, respectively, with a principal amount of: (i) RMB0.5 billion, with a nominal interest rate of 5.50%; (ii) RMB1.5 billion, with a nominal interest rate of 5.23%; and (iii) RMB2.0 billion, with a nominal interest rate of 4.98%. They are recognised as equity instrument in the Group's financial statements. In July 2019, the Company obtained approval from the CSRC to issue perpetual bonds of a principal amount not exceeding RMB6.0 billion.

The Group finances its long-term business expansion by issuing corporate bonds with a term exceeding one year. The Group used the net proceeds from the issuance of corporate bonds primarily to repay its long-term liabilities. The Group also manages short-term liquidity by issuing corporate bonds with a term not exceeding one year.

Yalong River Hydropower issued medium-term notes on 20 March 2019 with a principal amount of RMB1.0 billion. The note has a three-year term with a nominal interest rate of 3.65%.

Amount due to non-controlling interests

As at 31 December 2016, 2017 and 2018 and 30 June 2019, the Group had an outstanding amount of RMB520.0 million, RMB489.9 million, RMB514.6 million and RMB274.9 million, respectively, due to a non-controlling shareholder of a subsidiary of the Group, Fujian Pacific. The amount due was non-interest bearing.

Lease liabilities

Effective 1 January 2019, IFRS 16 introduces a single lessee accounting model, whereby assets and liabilities are recognised for all leases on the balance sheet, subject to certain exceptions. As at 31 December 2016, 2017 and 2018 and 30 June 2019, the Group had lease liabilities of RMB2,666.9 million, RMB1,372.5 million, RMB434.5 million and RMB480.7 million, respectively, which mainly related to finance leases of power generating equipment. The Group enters into finance leases with related parties such as SDIC Finance Lease Co., Ltd. (国投融资阻赁有限公司), and other independent finance lease providers.

CAPITAL EXPENDITURES

Capital Expenditures

The Group's capital expenditures primarily comprise expenditures for the purchases of property, plant and equipment and intangibles. The following table sets out the Group's capital expenditures by segment for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	**2017**	**2018**	**2018**	**2019**
	(RMB in millions)				
Hydropower	9,369.3	7,601.3	6,915.4	2,517.6	3,168.4
Coal-fired power	6,664.2	2,924.7	1,840.5	781.2	703.7
Wind and solar power	1,213.6	1,109.0	1,467.9	351.4	846.5
Others	62.2	19.7	20.9	2.7	3.8
Total	**17,309.3**	**11,654.7**	**10,244.7**	**3,652.9**	**4,722.4**

The Group expected to incur approximately RMB6.4 billion of capital expenditures in the second half of 2019 to fund its business expansion, mainly for developing hydropower projects under construction.

The Group's anticipated capital expenditures are subject to changes from time to time, and are based on the reassessment of its business plan, including, but not limited to, the progress of its projects under construction and pipeline projects, prevailing market conditions, regulatory environment and outlook of its future results of operations. In addition, if the Group fails to obtain adequate financing, its ability to expand its business may be hindered and the prospects of the Group's future operations may be materially and adversely affected. See "*Risk Factors—Risks Related to the Group's Financial Aspects—The Group operates in a capital-intensive business, and failure to obtain capital on terms acceptable to the Group may increase its financing costs and cause delays in its expansion plans*".

CONTRACTUAL OBLIGATIONS AND COMMITMENTS

Capital Commitments

The following table sets forth the Group's commitments for purchases of property, plant and equipment and intangibles as at 30 June 2019:

	As at 30 June 2019
	(RMB in millions)
Contracted for	23,374.4
Authorised but not contracted for	282.3
Total	**23,656.7**

Lease Commitments

The following table sets forth the Group's future minimum lease payments under non-cancellable leases (including operating and finance leases) as at the dates indicated:

	As at 31 December			As at 30 June
	2016	2017	2018	2019
	(RMB in millions)			
Within one year	889.9	1,014.7	42.0	54.2
One to two years	597.9	115.5	123.3	77.0
Two to five years	1,179.1	242.3	141.8	223.1
Over five years	—	—	127.4	126.4
Total	**2,666.9**	**1,372.5**	**434.5**	**480.7**

Contingent Liabilities

As at 31 December 2016, 2017 and 2018 and 30 June 2019, the Group had outstanding contingent liabilities of RMB1,662.1 million, RMB1,402.5 million, RMB835.6 million and nil, respectively, primarily comprising the Group's guarantees associated with bank loans provided to certain third parties and related parties for their business operations.

In addition, the Group has made a full provision for expected loss of the guarantee provided to SDIC Qujing Power Generation Co., Ltd. (国投曲靖发电有限公司) for its failure to perform payment obligations under a finance lease. From 2016 to 2018, the Company as the guarantor had paid a portion of the overdue lease payments, and, as at 30 June 2019, the outstanding payables under such guarantee were RMB70.4 million, recorded as provision in the Group's non-current liabilities.

OFF-BALANCE SHEET ARRANGEMENT

As at 30 June 2019, the Group did not have any outstanding off-balance sheet guarantees.

KEY PERFORMANCE INDICATORS AND OTHER FINANCIAL METRICS

The following table sets forth the key measurements of the Group's profitability:

	As at and for the year ended 31 December			As at and for the six months ended 30 June	
	2016	2017	2018	2018	2019
	(RMB in millions, except percentages)				
Profit for the year/period	7,859.6	6,559.5	8,315.6	3,092.6	4,102.1
Net margin(1)	26.9%	20.7%	20.3%	17.4%	20.9%
EBITDA(2) *(unaudited)*	20,015.5	19,039.9	21,890.2	9,627.6	11,088.2
EBITDA margin(2) *(unaudited)*	68.4%	60.2%	53.4%	54.1%	56.5%

(1) Net margin is calculated by dividing profit for the year/period by revenue.

(2) EBITDA is defined as profit before tax from continuing operations, plus depreciation of property, plant and equipment, amortisation of intangible assets and finance costs (excluding net foreign exchange gain or loss and others). EBITDA margin is calculated by dividing EBITDA by revenue.

EBITDA or EBITDA margin is not an IFRS measure and should not be considered as an alternative to net profit, net margin or any other performance measures derived in accordance with IFRS or as an alternative to cash flow from operating activities or as a measure of the Group's liquidity. The Group believes that inclusion of EBITDA and EBITDA margin is appropriate to provide additional information to investors about the Group's operating performance and to provide a measure of operating results unaffected by differences in capital structures, capital investment cycles and ages of related assets among otherwise comparable companies. EBITDA and EBITDA margin have limitations as an analytical tool, and it should not be considered in isolation, or as a substitute for analysis of the Group's operating results as reported under IFRS.

The following table sets forth a reconciliation of profit before tax from continuing operations for the period/year to EBITDA and EBITDA margin for the periods indicated:

	Year ended 31 December			Six months ended 30 June	
	2016	2017	2018	2018	2019
	(RMB in millions, except percentages)				
Profit before tax from continuing operations	**8,917.1**	**7,514.3**	**9,667.9**	**3,710.2**	**4,850.7**
Add:					
Depreciation of property, plant and equipment	5,837.6	6,348.3	6,908.9	3,328.6	3,654.7
Amortisation of intangible assets	260.7	274.1	287.3	139.8	154.6
Finance costs (excluding net foreign exchange gain or loss and others)(1)	5,000.1	4,903.2	5,026.1	2,449.0	2,428.2
EBITDA	**20,015.5**	**19,039.9**	**21,890.2**	**9,627.6**	**11,088.2**
Divided by:					
Revenue	29,270.8	31,643.1	41,011.4	17,786.5	19,609.5
EBITDA margin	**68.4%**	**60.2%**	**53.4%**	**54.1%**	**56.5%**

(1) In 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019, the Group had a net foreign exchange gain of RMB33.5 million, loss of RMB30.4 million, gain of RMB72.3 million, gain of RMB6.2 million and loss of RMB8.1 million, respectively. Other finance costs in 2016, 2017 and 2018 and the six months ended 30 June 2018 and 2019 were RMB65.4 million, RMB56.1 million, RMB58.7 million, RMB35.0 million and RMB15.1 million, respectively.

SIGNIFICANT ACCOUNTING POLICIES AND ESTIMATES

The Group has identified certain accounting policies and estimates significant to the preparation of the financial information in accordance with IFRS. The audited consolidated financial statements in F-pages to this Registration Document sets forth these significant accounting policies in note 3, which are important for an understanding of the Group's financial condition and results of operations.

Some of the Group's accounting policies involve subjective assumptions, estimates and judgments that are discussed in note 4 to the audited consolidated financial statements in F-pages to this Registration Document. In the application of its accounting policies, the Group's management is required to make estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The Group's estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates. The Group's estimates and underlying assumptions are reviewed by its management on an ongoing basis.

The Group's management has identified below the accounting policies, estimates and judgements that they believe are critical to the preparation of the financial information.

Critical Accounting Policies

Revenue recognition

The vast majority of the Group's revenue comprised of contracts with customers from rate-regulated sales of electricity and heat, and it has determined that no enforceable rights and obligations exist at inception of the contract and arise only once the cooling-off period is complete and the Group is the legal supplier of energy to the customer. The performance obligation is the supply of energy over the contractual term; the units of supply represent a series of distinct goods that are substantially the same with the same pattern of transfer to the customer. The performance obligation is considered to be satisfied, as the customer consumes based on the units of energy delivered. This is the point at which revenue is recognised.

Revenue from sales of electricity and heat represents the amount of tariffs build for electricity and heat generated and transmitted to the respective power companies and heat supply companies. The amounts are billed monthly on basis of agreed output at pre-agreed prices.

Dividends

Dividends are recognised when they become legally payable. In the case of interim dividends to equity shareholders, this is when they are declared by the directors. In the case of final dividends, this is when approved by the shareholders at the annual general meeting.

Government grants

Government grants received on capital expenditure are generally deducted in arriving at the carrying amount of the asset purchased. Grants for revenue expenditure are netted against the cost incurred by the Group. Where retention of a government grant is dependent on the Group satisfying certain criteria, it is initially recognised as deferred income. When the criteria for retention have been satisfied, the deferred income balance is released to the consolidated Statement of profit or loss and other comprehensive income or netted against the asset purchased.

Property, plant and equipment

Items of property, plant and equipment are initially recognised at cost. As well as the purchase price, cost includes directly attributable costs and the estimated present value of any future unavoidable costs of dismantling and removing items. The corresponding liability is recognised within provisions.

Depreciation is provided on all other items of property, plant and equipment so as to write off their carrying value over their expected useful economic lives as detailed below.

Type of property, plant and equipment	Expected useful economic lives
Land use rights	Over life of agreement
Buildings and structures	10 to 50 years
Mechanical equipment	5 to 30 years
Transportation facilities	5 to 10 years
Office equipment and others	3 to 5 years
Highway use right	Over life of agreement

The residual values, useful lives and depreciation methods are reviewed and, adjusted if appropriate, at each reporting period end.

Construction in progress and engineering materials are recorded at cost being all directly attributable costs necessary for the asset to be located and to operate as intended by management. Depreciation is not recorded until such time as the asset has commenced operations.

Goodwill

Goodwill represents the excess of the cost of a business combination over the Group’s interest in the fair value of identifiable assets, liabilities and contingent liabilities acquired.

Goodwill is capitalised as an intangible asset with any impairment in carrying value being charged to the consolidated Statement of profit or loss and other comprehensive income. Where the fair value of identifiable assets, liabilities and contingent liabilities exceed the fair value of consideration paid, the excess is credited in full to the consolidated Statement of profit or loss and other comprehensive income on the acquisition date.

Intangible assets (other than goodwill)

Externally acquired intangible assets are initially recognised at cost and subsequently amortised on a straight-line basis over their useful economic lives.

Intangible assets are recognised on business combinations if they are separable from the acquired entity or give rise to other contractual/legal rights. The amounts ascribed to such intangibles are arrived at by using appropriate valuation techniques (see section related to critical estimates and judgements below).

Amortisation of intangible is calculated either at rates appropriate to write off the depreciable amount over the estimated useful lives on a straight-line basis.

Type of intangible assets	Expected useful economic lives
Software	5 years
Others	Up to 10 years

The residual values, useful lives and amortisation methods are reviewed and, adjusted if appropriate, at each reporting period end.

Under the terms of the various contracts with the government, where the Group obtains the right to use various assets. Where the Group acts as operator is required to maintain the asset and make necessary improvements. The upgrade services will maintain and enhance the Group's ability to provide services to the users and therefore the expenditure is recognised as an intangible asset which represents the right to charge users for the public service. The upgrade services are accounted for in accordance with IFRS 15. Revenue is recognised based on stage of completion of the services measured by reference to the fair value of consideration receivable. Fair value of consideration represents the cost of the upgrade services with an estimated margin on services.

Deferred taxation

Deferred tax assets and liabilities are recognised where the carrying amount of an asset or liability in the consolidated statement of financial position differs from its tax base, with certain exceptions.

Recognition of deferred tax assets is restricted to those instances where it is probable that taxable profit will be available against which the difference can be utilised.

The amount of the asset or liability is determined using tax rates that have been enacted or substantively enacted by the reporting date and are expected to apply when the deferred tax liabilities/ (assets) are settled/(recovered).

Deferred tax assets and liabilities are offset when the Group has a legally enforceable right to offset current tax assets and liabilities and the deferred tax assets and liabilities relate to taxes levied by the same tax authority on either:

- The same taxable group company; or
- Different group entities which intend either to settle current tax assets and liabilities 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 assets or liabilities are expected to be settled or recovered.

Significant Accounting Judgements and Estimates

Impairment losses for bad and doubtful debts

Impairment provisions for current and non-current trade receivables are recognised based on the simplified approach within IFRS 9 using a provision matrix in the determination of the lifetime expected credit losses. During this process the probability of the non-payment of the trade receivables is assessed. This probability is then multiplied by the amount of the expected loss arising from default to determine the lifetime expected credit loss for the trade receivables. For trade receivables, which are reported net, such provisions are recorded in a separate provision account with the loss being recognised within cost of sales in the consolidated Statement of profit or loss and other comprehensive income. On confirmation that the trade receivable will not be collectable, the gross carrying value of the asset is written off against the associated provision.

Impairment provisions for receivables from related parties and loans to related parties are recognised based on a forward-looking expected credit loss model. The methodology used to determine the amount of the provision is based on whether there has been a significant increase in credit risk since initial recognition of the financial asset. For those where the credit risk has not increased significantly since initial recognition of the financial asset, twelve month expected credit losses along with gross interest income are recognised. For those for which credit risk has increased significantly, lifetime expected credit losses along with the gross interest income are recognised. For those that are determined to be credit impaired, lifetime expected credit losses along with interest income on a net basis are recognised.

From time to time, the Group elects to renegotiate the terms of trade receivables due from customers with which it has previously had a good trading history. Such renegotiations will lead to changes in the timing of payments rather than changes to the amounts owed and, in consequence, the new expected cash flows are discounted at the original effective interest rate and any resulting difference to the carrying value is recognised in the consolidated Statement of profit or loss and other comprehensive income (operating profit).

Fair value of assets and liabilities acquired on business combination

In the prior period, the Group acquired a subsidiary as detailed in note 48 to the audited consolidated financial statements in F-pages to this Registration Document. The accounting for business combinations requires the fair valuation of assets and liabilities within the acquiree at the acquisition date and the fair valuation of consideration payable including any contingent consideration. The fair valuation exercise will involve making a number of estimates and the actual outcome may vary from the projected outcome.

The acquisition occurred in the prior year and acquisition values are considered to have not suffered a material change and therefore will only be assessed through consideration of impairment. The contingent consideration payable is fair valued at each period end based on the expectation of the amount being payable based on the contractual terms and likelihood of payment. Should circumstances the value of the liability could be amended in the next accounting period.

Impairment of goodwill and non-current assets

An annual impairment test is required for goodwill and for other non-current assets where there is an indication of impairment. Any impairment test is performed at the level of the cash generating units. Judgement is required in the assessment of whether an indication of impairment exists and also in identifying the level of the cash generating unit.

In making this assessment of whether an indication of impairment exists, the Directors consider the performance of the cash generating unit against expectation.

Any impairment review involves making a number of estimates on calculating the value in use. Details of the assumptions used are included in note 17 to the audited consolidated financial statements in F-pages to this Registration Document.

Expected credit losses on guarantees provided

The Group is required to provide for expected credit losses for guarantees provided. Details of the guarantees provided are included in note 50 to the audited consolidated financial statements in F-pages to this Registration Document. In deciding on an appropriate level of provision, the Group considers the financial position of the guaranteed party and the likelihood of them defaulting.

Recently Issued Accounting Pronouncements

A list of recently issued accounting pronouncements that are relevant to the Group is included in note 2 to the audited consolidated financial statements in F-pages to this Registration Document.

QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

The Group has designed a risk management and control system to measure, monitor and manage financial risks arising in the ordinary course of business. See note 47 to the audited consolidated financial statements in F-pages to this Registration Document for an overview of the risk management processes. The main financial risks the Group faces in the ordinary course of business are credit risk, foreign currency risk, liquidity risk and interest rate risk. As the Group expands the business by offering new products and services, doing business with individuals and entities that are not within traditional clients and counterparty base, and entering new geographical markets, the Group is exposed to new regulatory and business challenges and risks, and the complexity of the risks the Group faces has increased. The following discussion of the main financial risks and the estimated amounts of the risk exposure generated by the risk measurement models are forward-looking statements. These analyses and the results of the risk measurement models are not, however, predictions of future events, and the actual results may be significantly different from the analyses and results due to events in the global economy or the markets where the Group operates, as well as other factors described below.

Credit Risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Group's credit risk is primarily attributed to its cash and cash equivalents, accounts and notes receivable and long terms receivable and the guarantees it has issued (see note 50 to the audited consolidated financial statements in F-pages to this Registration Document).

The Group maintains most of its bank deposits and holds notes receivable in several major government-related financial institutions in the PRC and a non-bank financial institution which is a related party of the Group. With strong State support provided to those government-related financial institutions and the holding of directorship in the board of the related party non-bank financial institution, the directors are of the opinion that there is no significant credit risk on such assets.

The long-term receivable is mainly from associates. The Group has regular access to financial information of the entity and does not consider such receivable to be a significant credit risk.

With regard to accounts receivables arising from power sales, most of the power plants of the Group sell electricity to their sole customers, being the power grid companies of their respective provinces or regions where the power plants operate. These power plants of the Group communicate with their individual grid companies periodically and believe that adequate allowance for expected credit losses has been made in the consolidated financial statements.

The table below sets forth some details about the Group's provision for expected credit losses made as at 31 December 2016, 2017 and 2018:

As at 31 December 2018	Not past due	180-360	360-720	720-1,080	>1,080	Others	Total
				(RMB in millions)			
Expected credit loss rate	0%	5%	10%	30%	90%	6%	—
Estimated total gross carrying amount at default	1,978.7	18.2	13.0	2.2	80.0	3,511.3	5,603.4
Lifetime ECL	—	0.9	1.3	0.6	72.0	198.2	273.0
Total	**1,978.7**	**17.3**	**11.7**	**1.6**	**8.0**	**3,313.1**	**5,330.4**

As at 31 December 2017	Not past due	180-360	360-720	720-1,080	>1,080	Others	Total
				(RMB in millions)			
Expected credit loss rate	0%	5%	10%	30%	99%	8%	—
Estimated total gross carrying amount at default	2,100.3	20.4	8.7	18.0	57.8	1,706.4	3,911.6
Lifetime ECL	—	1.0	0.9	5.4	57.1	137.4	201.8
Total	**2,100.3**	**19.4**	**7.8**	**12.6**	**0.7**	**1,569.0**	**3,709.8**

As at 31 December 2016	Not past due	180-360	360-720	720-1,080	>1,080	Others	Total
				(RMB in millions)			
Expected credit loss rate	0%	5%	10%	30%	97%	9%	—
Estimated total gross carrying amount at default	1,740.7	4.2	44.4	2.8	124.7	934.3	2,851.1
Lifetime ECL	—	0.2	4.4	0.8	121.4	82.0	208.8
Total	**1,740.7**	**4.0**	**40.0**	**2.0**	**3.3**	**852.3**	**2,642.3**

Foreign Exchange Risk

Foreign exchange risk arises when individual Group entities enter into transactions denominated in a currency other than their functional currency. The Group's policy is, where possible, to allow group entities to settle liabilities denominated in their functional currency with the cash generated from their own operations in that currency. Where group entities have liabilities denominated in a currency other than their functional currency (and have insufficient reserves of that currency to settle them), cash already denominated in that currency will, where possible, be transferred from elsewhere within the Group.

At the year end, the Group's held cash and cash equivalents are in the following currencies:

	As at 31 December		
	2016	2017	2018
	(RMB in millions)		
Currency			
RMB	3,523.9	4,508.7	7,243.5
USD	336.6	228.3	115.0
GBP	293.8	235.4	111.3
EURO	—	—	0.2
Total	**4,154.3**	**4,972.4**	**7,470.0**

As at 31 December 2018, the Group's net monetary assets/liabilities by functional currency of the Group's entities were as follows:

	Total
Currency of monetary asset/(liability)	
RMB	(127,795.3)
USD	(1,456.5)
GBP	(4,137.2)
EURO	0.2
Total	**(133,388.8)**

The foreign currency risk of the Group mainly derives from some borrowings and deposits in GBP and USD. The Board has reviewed the RMB/GBP and RMB/USD exchange rate movement for the last two years and consider that a 10% movement would represent the maximum realistic exposure. The impact of such a change would not have a material impact on the reported results and therefore no sensitivity analysis is presented.

Liquidity Risk

Liquidity risk arises from the Group's management of working capital and the finance charges and principal repayments on its debt instruments. It is the risk that the Group will encounter difficulty in meeting its financial obligations as they fall due.

The Group's policy is to ensure that it will always have sufficient cash to allow it to meet its liabilities when they become due. The Group seeks to achieve this aim by ensuring that it has sufficient lines of credit and borrowings facilities in order to meet its obligations as they fall due. In addition, the Group maintains relationships with financial institutions and is confident that it has the ability to restructure its facilities and modify the timing of its obligations.

The following table sets out the contractual maturities (representing undiscounted contractual cash-flows) of financial liabilities:

At 31 December 2018	Up to 6 months	Between 6 and 12 months	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
	(RMB in millions)				
Account payables	928.0	3,749.8	—	—	—
Other payables	794.0	4,964.1	—	—	—
Long-term payables and lease liabilities	15.4	25.7	637.9	141.8	—
Long-term loans	798.2	13,077.3	22,220.5	25,932.3	63,551.3
Short-term loans	1,421.6	4,342.5	—	—	—
Long-term bonds	1,800.0	—	—	2,200.0	—
Short-term bonds	—	1,000.0	—	—	—
Total	**5,757.2**	**27,159.4**	**22,858.4**	**28,274.1**	**63,551.3**

At 31 December 2017	Up to 6 months	Between 6 and 12 months	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
	(RMB in millions)				
Account payables	930.7	3,904.0	—	—	—
Other payables	795.8	6,335.6	—	—	—
Long-term payables and lease liabilities	240.0	774.7	605.4	242.3	—
Long-term loans	1,023.0	11,944.7	11,703.1	25,961.6	71,222.1
Short-term loans	910.0	3,831.3	—	—	—
Long-term bonds	—	—	1,800.0	1,200.0	—
Short-term bonds	1,000.0	200.0	—	—	—
Total	**4,899.5**	**26,990.3**	**14,108.5**	**27,403.9**	**71,222.1**

At 31 December 2016	Up to 6 months	Between 6 and 12 months	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
	(RMB in millions)				
Account payables	674.8	4,886.6	—	—	—
Other payables	41.9	7,787.1	—	—	
Long-term payables and lease liabilities	560.0	329.9	597.9	1,699.1	—
Long-term loans	975.6	6,811.6	9,820.6	27,890.9	65,824.0
Short-term loans	2,588.7	5,329.2	—	—	—
Long-term bonds	—	—	—	3,000.0	—
Short-term bonds	2,500.0	2,000.0	—	—	—
Total	**7,341.0**	**27,144.4**	**10,418.5**	**32,590.0**	**65,824.0**

Interest Rate Risk

The Group is mainly exposed to cash flow interest rate risk from long-term loans at variable interest rates. All short-term borrowings are at fixed rate. All of the material long-term loans are at variable rates varying from 3.7% to 6.2%. The Directors consider that given the past history of interest rate movements and the economic outlook that it is unlikely that there will be significant increase in interest rates. Should the interest rate increase by 1%, which is the Directors assessment of the highest realistic increase, then the interest charge would increase by RMB1,117.0 million.

Overview

The Company is principally governed by the general meeting of its shareholders (the "**general meeting**"), the Board of Directors, the Supervisory Committee and senior management. The Articles of Association were approved at the eighth extraordinary general meeting for the year 2019 on 12 August 2019.

A brief description of the general meeting, the Board of Directors, the Supervisory Committee and senior management of the Company is set out below.

General Meeting

The general meeting is the governing authority of the Company. General meetings include annual general meetings and extraordinary general meetings. An annual general meeting is required to be called once a year, within six months following the end of the previous fiscal year. An extraordinary general meeting is required to be called within two months from the date of the occurrence of any of the following circumstances:

- the number of Directors is fewer than six;
- the losses of the Company that have not been made up reach one third of its total share capital;
- shareholders that hold, individually or collectively, 10% or more of the shares of the Company request to hold such a meeting;
- the Board of Directors considers it necessary;
- the Supervisory Committee proposes to hold such a meeting; or
- other circumstances as provided by relevant laws, administrative regulations, departmental rules or the Articles of Association.

The general meeting shall have the following functions and powers in accordance with PRC law:

- to decide on the business and investment plans of the Company;
- to elect and replace a Director or Supervisor who is not an employee representative, and decide on the amount and payment method of his or her remuneration;
- to consider and approve the report of the Board;
- to consider and approve the report of the Supervisory Committee;
- to consider and approve the annual financial budgets and the final accounts of the Company;
- to consider and approve the profit distribution plans and the plans for making up losses of the Company;
- to pass resolutions on any increase or decrease of the Company's registered capital;
- to pass resolutions on the issue of corporate bonds;
- to pass resolutions on the merger, division, dissolution, liquidation, or change in corporate form of the Company;

- to amend the Articles of Association;
- to pass resolutions on the engagement, dismissal or non-renewal of the appointment of any accounting firm by the Company;
- to consider and approve matters relating to the purchase and/or sales by the Company of material assets within one year with an aggregate value of 30% or more of the Company's audited total assets of the Company as at the end of its most recent financial period;
- to consider and approve material related party transactions (excluding those where the Company provides a guarantee, receives gifts of cash, or is relieved of obligations for no consideration) where the amount of the proposed related party transaction is more than RMB30 million and accounts for 5% or more of the audited net assets attributable to the owners of the Company as at the end of its most recent financial period, which amount shall be calculated on a cumulative basis for any consecutive 12 months if the Company deals with the same related party or deals with different related parties on related same subject matters;
- to consider and approve transactions by the Company or its subsidiaries (excluding those where the Company provides a guarantee, receives gifts of cash, or is relieved of obligations for no consideration) meeting the following criteria:
  - the value of the assets involved in the transaction reaches 50% of the audited total assets of the Company as at the end of its most recent financial period;
  - the price of the transaction reaches 50% of the audited total assets of the Company as at the end of its most recent financial period and exceeds RMB50 million;
  - profit derived from the transaction reaches 50% of the audited net profit of the Company for its most recent financial year and exceeds RMB5 million;
  - operating revenue derived from the target of the transaction during the most recent financial year reaches 50% of the audited operating revenue of the Company for its most recent financial year and exceeds RMB50 million; or
  - net profit derived from the target of the transaction during the most recent financial year reaches 50% of the audited net profit of the Company for its most recent financial year and exceeds RMB5 million;
- to consider and approve the following matters:
  - any guarantees provided after the cumulative amount of external guarantees provided by the Company and its subsidiaries reaches or exceeds 50% of the audited net assets of the Company as at the end of its most recent financial period;
  - any guarantees provided after the amount of the guarantees, calculated by aggregating all guarantees in the past 12 months, reaches or exceeds 30% of the audited total assets of the Company as at the end of its most recent financial period;
  - guarantees provided for the benefit of any obligator whose liability-to-asset ratio exceeds 70%;
  - a single guarantee that exceeds 10% of the audited net assets of the Company as at the end of its most recent financial period;

    - guarantees provided for the benefit of the Company's actual controller, shareholders and their related parties; and
    - guarantees amount exceed 50% of the Company's audited net assets as at the end of the most recent financial period and exceed RMB50 million, calculated by aggregating all guarantees in the past twelve months;

- to consider and approve any change in the use of proceeds from offerings of securities;
- to consider and approve any share incentive scheme;
- to consider and approve any share buy-back by the Company;
- to deliberate on proposals put forward by shareholders representing 3% or more of the Company's voting shares; and
- to examine and approve other matters as required by laws, administrative regulations, departmental rules, listing rules of the stock exchange where the A Shares of the Company are listed, or the Articles of Association to be approved at a general meeting.

Board of Directors

The Board of Directors is responsible for the general management of the Company and is accountable to the general meeting. Board meetings include routine board meetings and extraordinary board meetings. A routine board meeting is required to be called semi-annually. An extraordinary board meeting may be called upon demand.

The Board of Directors has the following functions and powers:

- to convene general meetings and report to general meetings;
- to implement resolutions of general meetings;
- to determine on the Company's business plans and investment plans;
- to formulate the annual financial budgets and final accounting plans of the Company;
- to propose the profit distribution plans and any amendments thereto and the loss make-up plan of the Company;
- to formulate proposals in respect of any increase or reduction of registered capital, the issuance of bonds or other securities and the listing of the Company;
- to formulate plans for material acquisitions, share buy-backs or any merger, division, dissolution or change in corporate form of the Company;
- to consider and approve related party transactions between the Company and any related individuals with a transaction amount of RMB300,000 or more and related party transactions between the Company and any related party with a transaction amount of RMB3 million or more and accounting for 0.5% or more of the Company's latest audited net assets attributable to the owners of the Company as at the end of its most recent financial period, which amount shall be calculated on a cumulative basis for any consecutive 12 months if the Company deals with the same related party, or deals with different related parties on related subject matters, in each case excluding transactions where the Company provides guarantee, receives gifts of cash, or is relieved of obligations for no consideration;

- to consider and approve transactions by the Company or its subsidiaries (excluding those where the Company provides a guarantee, receives gifts of cash, or is relieved of obligations for no consideration) meeting the following criteria:
  - the value of the assets involved in the transaction reaches 1% but is less than 50% of the audited total assets of the Company as at the end of its most recent financial period;
  - the price of the transaction reaches 1% but is less than 50% of the audited total assets of the Company as at the end of its most recent financial period, or reaches 50% of the audited total assets of the Company as at the end of its most recent financial period but is less than RMB50 million;
  - profit derived from the transaction reaches 1% but is less than 50% of the audited net profit of the Company for its most recent financial year, or reaches 50% of the audited net profit of the Company for its most recent financial period but is less than RMB5 million;
  - operating revenue derived from the target of the transaction during the most recent financial year reaches 1% but is less than 50% of the audited operating revenue of the Company for its most recent financial year, or reaches 50% of the audited operating revenue of the Company for its most recent financial period but is less than RMB50 million; or
  - net profit derived from the target of the transaction during the most recent financial year reaches 1% but is less than 50% of the audited net profit of the Company for its most recent financial year, or reaches 50% of the audited net profit of the Company for its most recent financial period but is less than RMB5 million;
- to consider and approve the provision of guarantees other than those that shall be submitted to the general meeting for approval;
- to decide on the establishment of the internal management structure of the Company;
- to appoint or dismiss the general manager and the secretary to the Board of Directors of the Company and to appoint or dismiss senior managers including vice president(s) and the person in charge of finance matters of the Company in accordance with the nominations by the general manager, and to determine their remunerations, rewards and penalties;
- to set up the basic management regime of the Company;
- to formulate the proposals for any amendment to the Articles of Association;
- to manage information disclosure of the Company;
- to propose to the general meeting the appointment or replacement of the accounting firms which provide auditing services to the Company;
- to receive reports from the general manager and review his or her work;
- to determine the establishment of any special committee and the appointment and removal of its members; and
- to exercise other functions and powers as stipulated by laws, administrative regulations, departmental rules or the Articles of Association.

In addition, in the disposal of fixed assets (which shall include the acts of transferring certain assets-related rights and interests, but excluding the acts of using fixed assets as collaterals), where the expected value of the fixed assets to be disposed of, combined with the value derived from the fixed assets already disposed of in the four months immediately preceding the disposal proposal, exceed 33% of the value of the Company's fixed assets as shown in the balance sheet that has been deliberated at the most recent general meeting, the Board of Directors may not, without the prior approval of the general meeting, dispose of or agree to the disposal of such fixed assets.

The Company's Board of Directors currently consists of nine Directors, including three independent non-executive Directors. A Director serves a term of three years and may seek re-election upon expiry of the said term. Independent Directors cannot serve more than two terms consecutively.

The membership of the Board of Directors of the Company is as set out below.

Name	Age	Current positions	Since
ZHU Jiwei	49	Chairman of the Board of Directors	2019
LUO Shaoxiang	55	Vice Chairman of the Board of Directors	2016
JIANG Hua	41	Director, General Manager	2019
ZHANG Yuanling	57	Director	2017
ZHAN Pingyuan	46	Director	2019
LI Jun	56	Director	2019
YU Yingmin	52	Independent Director	2019
SHAO Lvwei	53	Independent Director	2015
ZENG Ming	61	Independent Director	2015

The biographies of the members of the Board of Directors of the Company are set out below. The business address of the office of the Board of Directors is the registered address of the Company: Room 1108, Floor 11, 147 Xizhimen Nanxiao Street, Xicheng District, Beijing, PRC 100034.

Mr. ZHU Jiwei is the Chairman of the Board of Directors of the Company. He holds a bachelor's degree and a title of engineer. He served as assistant general manager of Xiamen Huaxia International Power Development Co., Ltd (厦门华夏国际电力发展有限公司) from March 2004 to September 2005. He served in SDIC Qujing Power Co., Ltd. (国投曲靖发电有限公司) as chief engineer and deputy general manager from September 2005 to November 2007, and as general manager from November 2007 to July 2012. Mr. Zhu previously served as general manager of Xiamen Huaxia International Power Development Co., Ltd. (厦门华夏国际电力发展有限公司) from July 2012 to August 2016. He served as general manager and deputy party secretary of the Company from August 2016 to March 2019. Mr. Zhu has been the party secretary of the Company since March 2019, and a Director of the Company since September 2016 with a current term of office from September 2016 to September 2019. Mr. Zhu has been the Chairman of the Board of Directors since March 2019 with a current term of office from September 2019 to September 2022.

Mr. LUO Shaoxiang is the Vice Chairman of the Board of Directors of the Company. He holds a master's degree and a title of senior engineer. He previously served at SDIC as deputy director and director of the strategy development department from October 2005 to December 2012 and from December 2012 to December 2014, respectively, and as director of the business management department from December 2014 to April 2016. Mr. Luo has served as department director of SDIC since April 2016 and as the director of SDIC Mining Investment Co., Ltd. (国投矿业投资有限公司) since December 2015. He has served as Vice Chairman of the Board of Directors of the Company since February 2016 with a current term of office from September 2019 to September 2022.

Mr. JIANG Hua is a Director and the general manager of the Company. He holds a master's degree and a title of senior engineer. He previously served as deputy manager and manager of the production and operation department of the Company from December 2009 to April 2013 and from April 2013 to October 2013, respectively. He served as department manager of the Company and was seconded to serve as deputy general manager of SDIC Jinneng from October 2013 to May 2016. Mr. Jiang served as assistant general manager and was seconded to serve as general manager of SDIC Qinzhou from May 2016 to December 2016. Mr. Jiang served as deputy general manager of the Company from August 2016 to March 2019. Mr. Jiang has been the deputy party secretary of the Company since March 2019, and a Director and the general manager of the Company since March 2019 both with a current term of office from September 2019 to September 2022.

Mr. ZHANG Yuanling is a Director of the Company. He holds a bachelor's degree and a title of senior engineer. Mr. Zhang previously served as deputy manager of the project management department of the Company from August 2000 to August 2001, general manager of SDIC Gansu Xiaosanxia Power Co., Ltd. (国投甘肃小三峡发电有限公司) from August 2001 to January 2005, deputy general manager of the Company from January 2005 to December 2013, and general manager of SDIC Chuangyi Industry Fund Management Co., Ltd. (国投创益产业基金管理有限公司) from December 2013 to June 2017. He has served as department director of SDIC since June 2017 and director of SDIC Asset Management Co., Ltd. (国投资产管理有限公司) since July 2017. Mr. Zhang has served as Director of the Company since November 2017 with a current term of office from September 2019 to September 2022.

Mr. ZHAN Pingyuan is a Director of the Company. He holds a doctor's degree and is a senior accountant and a senior international financial manager. Mr. Zhan previously served in various finance and accounting related positions in China International Water & Electric Corp. (中国水利电力对外公司) from June 2006 to August 2011, China Three Gorges Group International Investment Corp. (长江三峡集团国际投资有限公司) from August 2011 to July 2012, China Water & Electric International Investment Co., Ltd. (中水电国际投资有限公司) from July 2012 to April 2015 and China Three Gorges Group International Corp. (三峡国际能源投资集团有限公司) from April 2015 to March 2019. Mr. Zhan has been the chief financial officer of China Yangtze Power Co., Ltd. (中国长江电力股份有限公司) (Stock Code: 600900.SZ) since March 2019. He has also been a director of the Company since September 2019 with a current term of office from September 2019 to September 2022.

Mr. LI Jun is a Director of the Company. He holds a master's degree and a title of senior engineer of researcher level. Mr. Li served as general manager of Huaibei Guo'an Power Co., Ltd. (淮北国安电力有限公司) from July 2004 to April 2011. He served as chief engineer of the Company from April 2011 to February 2012. He served as chief engineer of the Company from February 2012 to August 2012 and deputy general manager of the Company from August 2012 to September 2017. Mr. Li has been the deputy party secretary of the Company since September 2017. Mr. Li has been a Director of the Company since April 2019 with a current term of office from September 2019 to September 2022.

Mr. YU Yingmin is an independent Director of the Company. He holds a doctor's degree and is a professor of the School of Accountancy of the Central University of Finance and Economics and a member of China Association of Certified Public Accountants. Mr. Yu served as an independent director of Guangdong CHJ Industry Co., Ltd. (广东潮宏基实业股份有限公司) (stock code: 002345.SZ) from September 2012 to November 2018, Northern United Publishing & Media (Group) Company Limited (北方联合出版传媒（集团）股份有限公司) (stock code: 601999.SH) from December 2015 to

December 2016, Sinotrans Air Transportation Development Co., Ltd. (中外运空运发展股份有限公司) (a former listed company on SSE under the stock code 600270, delisted due to merger) from August 2017 to November 2018, and Zhuhai Sailong Pharmaceutical Co., Ltd. (珠海赛隆药业股份有限公司) (stock code: 002898.SZ) from November 2015 to November 2018. Mr. Yu has been an independent director of Genimous Technology Co., Ltd. (智度科技股份有限公司) (stock code: 000676.SZ) since January 2015, Huabao Flavours & Fragrances Co., Ltd. (华宝香精股份有限公司) (stock code: 300741.SZ) since November 2016, Sichuan Shuangma Cement Co., Ltd. (四川双马股份有限公司) (stock code: 000935.SZ) since August 2017 and Guangzhou Tech-Long Packaging Machinery Co., Ltd. (广州达意隆包装机械股份有限公司) (stock code: 002209.SZ) since December 2018. Mr. Yu has been an independent director of the Company since September 2019 with a term of office from September 2019 to September 2022.

Mr. SHAO Lvwei is an independent Director of the Company. He holds a bachelor's degree. Mr. Shao is currently a partner and director of Jiangsu Xintianlun Law Firm (江苏新天伦律师事务所). He has served as independent director of Jiangsu Yangnong Chemical Co., Ltd. (江苏扬农化工股份有限公司) since 2016, he has also served as independent director of Jiangsu Aoyang Health Industry Co., Ltd. (江苏澳洋健康产业股份有限公司) since March 2018. Mr. Shao has served as independent Director of the Company since May 2015 with a term of office from September 2019 to May 2021.

Mr. ZENG Ming is an independent Director of the Company. He holds a master's degree and is a professor of economics and management of electric power technology and director of research and consulting centre of energy and power economy at the North China Electric Power University. He has served as independent director of Creative Distribution Automation Co., Ltd. (北京科锐配电自动化股份有限公司), and independent director and subsequently director of Jointo Energy Investment Co., Ltd. Hebei. (河北建投能源投资股份有限公司) since 2016. From 2016 to May 2019, Mr. Zeng served as the independent director of Nari Technology Co., Ltd. (国电南瑞科技股份有限公司) Since 2017, Mr. Zeng has also served as director of Suzhou Taigu Power Mange Co., Ltd. (苏州太谷电力股份有限公司) and GCL Intelligent Energy Co., Ltd. (协鑫智慧能源股份有限公司). He has served as independent Director of the Company since July 2015 with a term of office from September 2019 to July 2021.

Supervisory Committee

The Supervisory Committee is responsible for overseeing the Company's general management and is accountable to the general meeting.

The Supervisory Committee has the following functions and powers in accordance with PRC law:

- to review the periodic reports of the Company prepared by the Board and prepare written review opinions thereon;
- to inspect the finances of the Company;
- to monitor the Directors and senior managers in their performance of their duties, and propose the dismissal of Directors and senior managers who have violated laws, administrative regulations, the Articles of Association or the resolutions of the general meetings;
- to require Directors and senior managers to correct theirs actions which are harmful to the interests of the Company;

- to propose the convening of extraordinary general meetings, and to convene and preside over the general meetings, if the Board fails to perform its duties to convene and preside over the general meetings in accordance with the PRC Company Law;
- to make proposals to be considered at a general meeting;
- to bring legal actions against Directors and senior managers in accordance with the PRC Company Law;
- to verify such financial materials as financial reports, business reports and profit distribution plans that the Board of Directors intends to submit to the general meeting; if it has any doubt, the Supervisory Committee may, in the name of the Company, appoint certified public accountants or certified public auditors to assist in the review;
- to conduct investigations in relation to any operational abnormality of the Company, and engage accounting firms, law firms or other professional agencies to assist with such investigation at the expense of the Company;
- to oversee the Company and its management personnel's compliance with applicable laws during its operations and management; and
- to exercise other functions and powers as stipulated by laws, administrative regulations, departmental rules or the Articles of Association.

The Company's Supervisory Committee currently consists of three Supervisors, including the chairman of the Supervisory Committee. The term of office of each Supervisor shall be three years per session. Upon expiry of the term, a Supervisor may be reappointed upon re-election. The Chairman of the Supervisory Committee shall be elected and removed by the Supervisory Committee.

The membership of the Supervisory Committee of the Company is as set out below.

Name	Age	Current positions	Since
QU Lixin	52	Chairman of the Supervisory Committee	2019
ZHANG Haijuan	38	Supervisor	2019
MA Bin	51	Supervisor	2018

The biographies of the members of the Supervisory Committee of the Company are set out below. The business address of the office of the Supervisory Committee is the registered address of the Company: Room 1108, Floor 11, 147 Xizhimen Nanxiao Street, Xicheng District, Beijing, PRC 100034.

Mr. QU Lixin holds a bachelor's degree and a title of senior accountant. He previously served at the Company as assistant general manager and chief financial officer from August 2008 to September 2010, and as deputy general manager from September 2010 to February 2012. He served as deputy general manager of the Company from February 2012 to December 2018. Mr. Qu was the Director of the Company from November 2017 to December 2018. Mr. Qu currently serves as audit commissioner of SDIC, the chairman of the supervisory committee of SDIC Capital Co., Ltd. (国投资本股份有限公司) since April 2019, and the supervisor of SDIC Intelligence Co., Ltd. (国投智能科技有限公司) since April 2019. Mr. Qu has been the chairman of the Supervisory Committee of the Company since February 2019 with a current term of office from September 2019 to September 2022.

Ms. ZHANG Haijuan is a supervisor of the Company. She holds a master's degree. Ms. Zhang served as senior auditor and senior tax consultant of the audit department at the Beijing Office of Deloitte Touche Tohmatsu CPA Ltd. (德勤华永会计师事务所有限公司北京分所) from July 2006 to October 2012. She also served as senior audit manager of the audit department from October 2012 to March 2014 and as direct senior business manager of from March 2014 to December 2015 of SDIC. She has been the director of audit team I of the audit department of SDIC since December 2015. Ms. Zhang has been a director of the Company since September 2019 with a current term of office from September 2019 to September 2022.

Mr. MA Bin holds a master's degree and a title of senior accountant of researcher level. He previously served as chief financial officer of Huaibei Guo'an Power Co., Ltd. (淮北国安电力有限公司) from August 2005 to September 2007, general accountant of SDIC Xuancheng from September 2007 to November 2014, deputy general manager of SDIC Panjiang Electric Power Co., Ltd. (国投盘江发电有限公司) from November 2014 to April 2017. Mr. Ma served as senior business manager of the audit department of the Company from April 2017 to September 2017, as manager of the audit department of the Company since September 2017. Mr. Ma has been a Supervisor of the Company since August 2018 with a current term of office from September 2019 to September 2022.

Senior Managers

The senior managers, by function, of the Company are as set out below to the extent that not all of them are members of the Board of Directors. All senior managers have a current term of office of three years.

Name	Age	Current positions	Since
JIANG Hua	41	Director, General Manager	2019
ZHAO Fengbo	55	Deputy General Manager	2014
YANG Lin	47	Secretary to the Board of Directors	2013
NIU Yuexiang	54	Chief Financial Officer	2018

The biographies of the senior managers of the Company are set out below. The business address of the senior management is the registered address of the Company: Room 1108, Floor 11, 147 Xizhimen Nanxiao Street, Xicheng District, Beijing, PRC 100034.

Mr. JIANG Hua is the Director and the general manager of the Company. See "*—Board of Directors*" for Mr. Jiang's biography.

Mr. ZHAO Fengbo holds a bachelor's degree and a title of senior economist. Mr. Zhao served as senior business manager of the operation department of the Company from December 2004 to January 2010. He served as manager of the business development department of the Company from January 2010 to April 2013. Mr. Zhao served as chief economist of the Company from April 2013 to November 2014, he has been the deputy general manager of the Company since November 2014 with a term of office from November 2014 to August 2019.

Mr. YANG Lin holds a master's degree and a title of senior economist. Mr. Yang served as manager of the administration department and project manager of the Company from November 2005 to March 2006 and March 2006 to December 2009, respectively. He served as manager of the human resource department of the Company from December 2009 to March 2013 and has been the secretary to the Board of Directors since March 2013 with a term of office from March 2013 to August 2019.

Ms. NIU Yuexiang holds a college diploma and a title of accountant. She previously served as manager of the planning and finance department of the Company from July 2004 to September 2017. Ms. Niu has been the assistant general manager of the Company since September 2017, and the chief financial officer of the Company since December 2018 with a term of office from December 2018 to September 2019.

The current senior managers' term of office has been extended until the appointment of new senior managers, if any, pursuant to Board resolutions dated 2 September 2019.

Other Directorships

In addition to their directorships of the Company and certain subsidiaries, the Directors, Supervisors and senior managers have held or hold the following directorships or have been or are members of the following partnerships, within the past five years.

Name	Current Directorships/Partnerships	Previous Directorships/Partnerships
ZHU Jiwei	—	—
LUO Shaoxiang	● SDIC Mining Investment Co., Ltd. (国投矿业投资有限公司)	—
JIANG Hua	—	—
ZHANG Yuanling . . .	● SDIC Asset Management Co., Ltd. (国投资产管理有限公司)	—
ZHAN Pingyuan	—	—
LI Jun	—	—
YU Yingmin	● Genimous Technology Co., Ltd. (智度科技股份有限公司)· ● Huabao Flavours & Fragrances Co., Ltd. (华宝香精股份有限公司)· ● Sichuan Shuangma Cement Co., Ltd. (四川双马股份有限公司)· ● Guangzhou Tech-Long Packaging Machinery Co., Ltd. (广州达意隆包装机械股份有限公司)	● Guangdong CHJ Industry Co., Ltd. (广东潮宏基实业股份有限公司)· ● Northern United Publishing & Media (Group) Company Limited (北方联合出版传媒（集团）股份有限公司) ● Sinotrans Air Transportation Development Co., Ltd. (中外运空运发展股份有限公司) ● Zhuhai Sailong Pharmaceutical Co., Ltd. (珠海赛隆药业股份有限公司)
SHAO Lvwei	● Jiangsu New Talent Law Firm (江苏新天伦律师事务所) ● Jiangsu Yangnong Chemical Co., Ltd. (江苏扬农化工股份有限公司) ● Jiangsu Aoyang Health Industry Co., Ltd. (江苏澳洋健康产业股份有限公司)	—

Name	Current Directorships/Partnerships	Previous Directorships/Partnerships
ZENG Ming	● Creative Distribution Automation Co., Ltd. (北京科锐配电自动化股份有限公司) ● Suzhou Taigu Power Mange Co., Ltd. (苏州太谷电力股份有限公司) ● GCL Intelligent Energy Co., Ltd. (协鑫智慧能源股份有限公司) ● Jointo Energy Investment Co., Ltd. Hebei. (河北建投能源投资股份有限公司)	● NARI Technology Co., Ltd. (国电南瑞科技股份有限公司)
QU Lixin	—	—
ZHANG Haijuan	—	—
MA Bin	—	—
ZHAO Fengbo	● GEPIC Zhangye Power Generation Co., Ltd. (甘肃电投张掖发电有限责任公司)	—
YANG Lin	● Tongshan CR Power Co., Ltd. (铜山华润电力有限公司) ● Xuzhou CR Power Co., Ltd. (徐州华润电力有限公司) ● Jiangxi Ganneng Co., Ltd. (江西赣能股份有限公司)	—
NIU Yuexiang	—	—

Conflicts of interest and other matters

There are no potential conflicts of interest between any duties owed by the Directors, Supervisors or senior managers to the Company and their private interests and/or other duties. There are no interests, including conflicting interests that are material.

None of the Directors, Supervisors or senior managers are related to one another for the purposes of the Prospectus Regulation Rules.

As at the date of this Registration Document, none of the Directors, Supervisors or senior managers has in the previous five years:

- had any convictions in relation to fraudulent offences;
- been a member of the administrative, management or supervisory bodies of any company, or been a partner in any partnership, at the time of or preceding any bankruptcy, receivership, liquidation or placement into administration; or

- been subject to official public incrimination or sanction by a statutory or regulatory authority (including a professional body) nor ever been disqualified by a court from acting as a member of the administrative, management or supervisory bodies of a company or from acting in the management or conduct of the affairs of a company.

None of the Directors, Supervisors or senior managers of the Company have agreed to any lock-up restrictions on the disposal of any Shares that they may hold in the Company.

Corporate Governance

At the date of this Registration Document, the Company is in full compliance with the corporate governance requirements applicable to it as a PRC public company listed on the Shanghai Stock Exchange.

The Company operates within a comprehensive governance framework, which aims to add value to shareholders through the adoption of international best practice. Certain responsibilities of the Board of Directors are delegated to the specialised committees to assist the Board with carrying out its functions and to ensure independent oversight of internal control and risk management. The four principal specialised committees (the Development Strategy Committee, the Audit Committee, the Nomination Committee and the Remuneration and Appraisal Committee) play an essential role in supporting the Board of Directors in fulfilling its responsibilities and ensuring that the highest standards of corporate governance are maintained throughout the Company. All the specialised committees are accountable to, and submit working reports to, the Board of Directors, which shall consider the opinions of the specialised committees before making any decisions on matters related to the duties of the specialised committees.

Development Strategy Committee

The Development Strategy Committee is mainly responsible for studying and predicting the long-term development strategies of the Company and determining the development strategic plan of the Company. The specific duties of the Development Strategy Committee include: (i) studying the Company's long-term development strategy and giving suggestions on the same; (ii) studying and giving suggestions on the Company's major investment financing plans which are subject to the approval of the Board of Directors as stipulated in the Articles of Association; (iii) studying and giving suggestions on the Company's major capital operations and asset management projects which are subject to the approval of the Board of Directors as stipulated in the Articles of Association; (iv) studying and giving suggestions on other major issues affecting the development of the Company; (v) checking the implementation of the above matters; and (vi) other duties granted by the Board. Meetings of the Development Strategy Committee shall be convened by the chairman of the Board of Directors of the Company. The Development Strategy Committee is chaired by Mr. ZHU Jiwei and consists of Mr. ZHU Jiwei, Mr. LUO Shaoxiang and Mr. ZENG Ming.

Audit Committee

The Audit Committee assists the Board of Directors with, amongst the other matters: (i) monitoring and evaluating the work of the Company's external auditor; (ii) guiding the internal audit work; (iii) reviewing and commenting on the financial statements of the Company; (iv) evaluating the effectiveness of the Company's internal controls; (v) coordinating the communications of management, the internal audit department and relevant departments with the

Company's external auditor; (vi) formulating and revising the Company's related party transaction management system and supervising its implementation; (vii) confirming the Company's related parties and reporting to the Board of Directors and the Supervisory Committee; (viii) reviewing the related party transactions required to be reviewed by the Board of Directors, and checking and judging the related party transactions of the Company; and (ix) other matters authorised by the Board of Directors and other matters involved in relevant laws and regulations.

The duties of the Audit Committee in monitoring and evaluating the work of the Company's external auditor include the following: (i) assessing the independence and professionalism of the external auditor, especially the impact of providing non-audit services on the external auditor's independence; (ii) making proposals to the Board of Directors in relation to hiring or replacement of the external auditor; (iii) auditing the audit fees and terms of employment of the external auditor; (iv) discussing and communicating with the external auditor on audit scope, audit plan, audit methods and any major issues identified during the audit; and (v) monitoring and evaluating the diligence and accountability of the external auditor.

The duties of the Audit Committee in directing the internal audit work include the following: (i) reviewing the annual internal audit work plan of the Company; (ii) supervising the implementation of the internal audit plan of the Company; (iii) reviewing the internal audit report, evaluating the results of the internal audit, and supervising the rectification of any major issues; and (iv) guiding the effective operation of the internal audit department.

The duties of the Audit Committee in reviewing and commenting on the financial statements of the Company include the following: (i) reviewing the Company's financial reports and providing opinions on the authenticity, completeness and accuracy of such financial reports; (ii) focusing on any major accounting and audit issues contained in the Company's financial reports, including, amongst other matters, any major adjustment of accounting errors, major changes in accounting policies and estimates, matters involving important accounting judgements, matters leading to non-standard unqualified opinion audit reports; (iii) paying particular attention to the possibility of fraud, cheating and material misstatement related to financial reporting; and (iv) supervising the rectification of financial report problems.

The duties of the Audit Committee in assessing the effectiveness of internal controls include the following: (i) evaluating the appropriateness of the internal control system design of the Company; (ii) reviewing the Company's internal control self-evaluation report; (iii) reviewing the Company's internal control audit report issued by the Company's external auditor and communicating with the external auditor on any problems and on improvement methods; and (iv) evaluating the results of the internal control evaluation and audit, and supervising the rectification of any internal control defects.

The duties of the Audit Committee in coordinating the communications between management, the internal audit department and relevant departments with the Company's external auditor include: (i) coordinating management communication with the Company's external auditors on any major audit issues; and (ii) coordinating the communication between the internal audit department and the Company's external auditor and cooperating with external audit work.

The Audit Committee is chaired by Mr. YU Yingmin and consists of Mr. YU Yingmin, Mr. ZENG Ming and Mr. SHAO Lvwei, all of whom are Independent Directors.

Nomination Committee

The Nomination Committee assists the Board of Directors with, amongst other matters: (i) giving suggestions to the Board of Directors on the size and composition of the Board based on the Company's business activities, asset size and shareholding structure; (ii) reviewing and opining on the election standards and procedures of the Directors and senior managers; (iii) searching broadly for eligible candidates for Directors and management officers; (iv) reviewing and opining on the qualification criteria of candidates for positions as Directors or management officers; (v) reviewing and opining on the other senior management personnel to be appointed by the Board of Directors; and (vi) other matters authorised by the Board of Directors. The Nomination Committee, chaired by Mr. ZENG Ming, consists of Mr. ZENG Ming, Mr. SHAO Lvwei and Mr. ZHANG Yuanling.

Remuneration and Appraisal Committee

The Remuneration and Appraisal Committee assists the Board of Directors with, amongst other: (i) formulating remuneration plans or schemes for Directors and senior management; the remuneration plans or schemes mainly include but are not limited to the performance appraisal standard, procedure and the main appraisal system, the main plan and the system for rewards and penalties, etc.; (ii) reviewing the performance of the Directors and senior managers and conducting annual performance appraisals; (iii) supervising the implementation of the remuneration system for Directors and senior management; and (iv) other matters authorised by the Board of Directors. The Remuneration and Appraisal Committee, chaired by Mr. SHAO Lvwei, consists of Mr. SHAO Lvwei, Mr. YU Yingmin and Mr. ZHANG Yuanling.

Remuneration

The aggregate amount of total pre-tax remuneration and pension, retirement and other similar benefits received from the Company by the then Directors, Supervisors and senior managers as a group for services in all capacities provided to the Company in 2018 was RMB7.94 million. The aggregate amount within this total which was set aside or accrued by the Company to provide pension, retirement or similar benefits to such Directors, Supervisors and senior managers in 2018 was approximately RMB0.9 million.

The following table sets forth some details of the pre-tax remuneration and pension, retirement and other similar benefits received from the Company by each of the Company's current Directors, Supervisors and senior managers in 2018:

Name	Pre-tax remuneration and pension, retirement and other similar benefits received from the Company in 2018
	(RMB in thousands)
ZHU Jiwei	1,317.7
LUO Shaoxiang	N/A(1)
JIANG Hua	969.5
ZHAN Pingyuan	N/A(3)
ZHANG Yuanling	N/A(1)
LI Jun	N/A(2)
YU Yingmin	N/A(3)
SHAO Lvwei	80.0
ZENG Ming	80.0
QU Lixin	1,079.4
ZHANG Haijuan	N/A(3)
MA Bin	300.3
ZHAO Fengbo	1,077.4
YANG Lin	1,021.3
NIU Yuexiang	N/A(4)

(1) This director/supervisor was nominated by SDIC, and not employed by the Company.
(2) Mr. Li became a Director of the Company in April 2019.
(3) Mr. Zhan, Mr. Yu and Ms. Zhang became Director or Supervisor of the Company in September 2019.
(4) Ms. Niu became Chief Financial Officer of the Company on 28 December 2018.

Employment Contracts with the Directors, Supervisors and Senior Managers

As a general rule, employment contracts in PRC include fixed-term employment contracts and open-ended employment contracts where the Company and the employee have agreed not to stipulate a definite termination date.

Pursuant to the Chinese Labour Contract Law, an employment contract is terminated upon the occurrence of any of the following events: (i) expiration of the employment contract; (ii) the employee has commenced receiving basic pension insurance; (iii) the employee dies, or is declared dead or missing by a People's Court; (iv) the Company is announced as bankrupt according to law; (v) the Company has its business licence revoked, is ordered to be closed or cancelled, or the Company decides to be dissolved; and (vi) the occurrence of other grounds as stated in laws or administrative regulations.

The Company may terminate an employment contract for cause if the employee: (i) proves to be incompetent during the probation period; (ii) grossly violates the internal policies of the Company; (iii) engages in gross misconduct which causes material damage to the Company; (iv) enters into an employment arrangement with another employer that would affect his or her ability to perform his or her duties to the Company, and refuses to terminate such arrangement following the Company's request to do so; (v) engages in fraud or coercion to induce the Company to enter into the employment contract, or (vi) is convicted of a criminal offence.

The Company may terminate the employment contract if it notifies the employee in writing 30 days in advance or after it pays the employee an extra month's compensation, under the following circumstances: (i) the employee is unable to undertake full working responsibility, in his or her original position or the new position arranged by the Company after medical treatment, due to illness or non work-related injury; or (ii) the employee is not qualified for the work, even after being trained in or adjusted to different positions; or (iii) there has been a significant change in circumstances on which the employment was based, and the employment contract cannot be performed. Employment contracts with the senior managers do not provide severance pay upon termination of employment by the company with or without cause. None of the Directors or Supervisors would receive severance pay upon termination of their term of office.

Where an employer pays training expenses for the special technical training of its employees, the employer may enter an agreement with its employees which specifies their service period. Under the Chinese legal system, a service period is a concept different from the term of an employment contract. Directors, supervisors and senior managers shall pay damages if they voluntarily resign or are dismissed and which results in the service period being terminated in advance.

Interests of Board of Directors, Supervisors and Senior Managers

The table below sets out the interests of the Directors, Supervisors and senior managers in the Company's share capital as at the Latest Practicable Date, unless stated otherwise.

Name of Director, Supervisor or senior manager	A Shares as at the Latest Practicable Date	
	Number of A Shares	% of total share capital
JIANG Hua	6,000	0.000088

Save as disclosed above, none of the Directors, Supervisors or senior managers of the Company holds any interest in the Company's share capital.

None of the Directors, Supervisors or senior managers of the Company holds options in respect of the Company's shares.

As at the Latest Practicable Date, the Company had issued a total of 6,786,023,347 A Shares with a par value of RMB1.00 per A Share. No shareholder has different voting rights attached to the A Shares to any other shareholder. The Company is not aware of any arrangements, the operation of which may at a subsequent date result in a change of control of the Company.

The Administrative Measures for the Disclosure of Information of Listed Companies of the PRC require that an annual report of a listed company shall include, among other things, information about the top 10 shareholders and shareholders holding 5% or more of the shares.

Shareholders holding 5% or more

The table below sets forth certain information regarding those shareholders of the Company which, as at the Latest Practicable Date hold 5% or more of the A Shares of the Company:

Shareholder	A Shares as at the Latest Practicable Date	
	Number of A Shares	% of total share capital
SDIC	3,337,136,589	49.18
China Yangtze Power Co., Ltd	719,988,357	10.61

Top 10 Shareholders

The table below identifies the top 10 beneficial owners of the Company's A Shares, based on the A Shares outstanding as at 30 June 2019. No shareholder has different voting rights attached to the A Shares to any other shareholder.

Name of shareholder	Percentage
SDIC	49.18
China Yangtze Power Co., Ltd(1)	10.61
China Securities Finance Co., Ltd	3.00
Hong Kong Securities Clearing Co., Ltd	2.48
Shanghai Chongyang Investment Co., Ltd—Chongyang Strategic Caizhi Fund(2)	1.33
Shanghai Chongyang Investment Co., Ltd—Chongyang Strategic Juzhi Fund(2)	1.12
Shanghai Chongyang Investment Co., Ltd—Chongyang Strategic Huizhi Fund(2)	0.81
Shanghai Chongyang Investment Co., Ltd—Chongyang Strategic Yingzhi Fund(2)	0.80
Mr. GONG Youhua	0.79
Shanghai Chongyang Investment Co., Ltd—Chongyang Strategic Chuangzhi Fund(2)	0.63

(1) The persons acting in concert with China Yangtze Power Co., Ltd are its capital investment subsidiary and its controlling shareholder's capital investment subsidiary, holding an equity interest of 0.31% of the A Shares outstanding as at 30 June 2019.

(2) These companies are persons acting in concert. Their other persons acting in concert, mainly private equity funds and asset management schemes, together held an equity interest of 1.62% of the A Shares outstanding as at 30 June 2019.

As at the Latest Practicable Date, SDIC is the controlling shareholder of the Company.

Under the Company's Articles of Association and pursuant to the relevant rules of the Shanghai Stock Exchange, shareholders with an equity interest of 3% or above in the Company have the ability to nominate directors. In addition, shareholders with an equity interest of 1% or above in the Company have the ability to nominate independent directors. Four of the Company's nine current Directors were nominated by SDIC. In addition, as at the Latest Practicable Date, SDIC held 49.18% of the Company's Shares. Therefore, SDIC may, by voting its shareholding at general meetings of shareholders, have the ability to influence the Company's major policy decisions. To increase independence of corporate governance, the Company has established the Audit Committee, which, pursuant to relevant regulations issued by the CSRC, is chaired by an independent Director and all of its members are independent Directors. Moreover, the Company has established the Nomination Committee and the Remuneration and Appraisal Committee, each of which is chaired by an independent Director, and a majority of their members are independent Directors. The Company also engages independent auditors to audit the Company's annual financial statements and review its internal financial controls. In addition, the Company has implemented internal rules on related party transactions, pursuant to the relevant rules of the Shanghai Stock Exchange, such as requiring Directors nominated by SDIC to recuse themselves from relevant approval procedures, where SDIC or the SDIC group is the transaction counter-party.

RELATED PARTY TRANSACTIONS

For the purposes of the Historical Financial Information, parties are considered to be related in line with the requirements of IAS 24. IAS 24 "Related Party Transactions" contains a definition of related parties, which are, broadly, parties under common control or one party controlling the other party or capable of exercise of significant influence over the other party in making financial or operational decisions. In considering each possible related party relationship, attention is directed to the substance of the relationship, not merely the legal form.

SDIC is the controlling shareholder of the Company. Accordingly, entities directly or indirectly controlled by SDIC outside the Group are regarded as related parties of the Group. As presented in the Annual Historical Financial Information as at and for the years ended 31 December 2016, 2017 and 2018 and the Interim Historical Financial Information as at and for the six months ended 30 June 2019, the Group entered into transactions with these related parties in the ordinary course of its business, mainly relating to: (i) obtaining borrowings from related parties; (ii) purchases of coal from, and related unloading and storage services rendered by, related parties; and (iii) finance leases. Moreover, the Group provides guarantees to its associates on their debts, which are also considered as related party transactions. These related party transactions were conducted on an arm's length basis and with normal commercial terms between the relevant parties.

In addition, the ultimate parent company of the Group, and the final controlling party, is the SASAC, which is a special commission of the PRC, directly under the State Council. Accordingly, government-related entities, other than those under the Company and its subsidiaries, directly or indirectly controlled by the central government of the PRC, are regarded as related parties of the Group. As presented in the Annual Historical Financial Information as at and for the years ended 31 December 2016, 2017 and 2018 and the Interim Historical Financial Information as at and for the six months ended 30 June 2019, the Group entered into transactions with these government-related entities in the ordinary course of its business, mainly relating to: (i) electricity sales to local government-related power grid companies; (ii) bank deposits in, and loans borrowed from, government-related financial institutions; and (iii) purchases of fuel (including coal) and property, plant and equipment from government-related entities. Management considered that the dealings of the Group with such government-related entities have not been significantly or unduly affected by the fact that the Group and those entities are government-related. These related party transactions were conducted on an arm's length basis and with normal commercial terms between the relevant parties.

For further details, see note 49 to the audited consolidated financial statements in F-pages to this Registration Document as at and for the years ended 31 December 2016, 2017 and 2018. The Group is expected to continue to enter into contracts for related party transactions of the foregoing nature as part of its ordinary business from time to time.

General

The Company was founded in the form of a joint stock company with limited liabilities in accordance with the PRC Company Law, the PRC Securities Law and other applicable regulations, and it has conducted business since its incorporation in conformity with its Articles of Association and the aforesaid laws and regulations.

The PRC Company Law establishes the main rules relating to the registration, operation, merger, spin-off and winding-up of PRC companies.

Objectives and Scope of Business

Pursuant to Chapter II of the Articles of Association, the operational objectives of the Company are to develop and operate large and medium-sized electric power projects, explore new energy, high-tech and environmental protection projects, improve the Company's business management, grow the Company's business and build the Company into an international listed power generation company with strong core competitiveness and advanced management

The scope of business of the Company includes investing, operating and managing energy projects mainly on electric power generation; developing and operating new energy projects, new and high-tech technologies; developing and operating projects in environmental protection industry; development and operation of ancillary products and information and advisory services relating to the power industry.

Issued Share Capital

As at the Latest Practicable Date:

(i) the Company had a total share capital of 6,786,023,347 A Shares that amounted to RMB6,786,023,347.00, which is listed on the Shanghai Stock Exchange with the stock name and code as (600886);

(ii) each share of the Company has a par value of RMB1.00, and the shares of the Company have been issued by the Company in registered form;

(iii) there are no shares of the Company held by or on behalf of the Company itself or by the subsidiaries of the Company;

(iv) neither the Company nor any of its subsidiaries has any outstanding convertible securities, exchangeable securities or securities with warrants or any relevant acquisition rights or obligations over the Company's or its subsidiaries' authorised but unissued capital or undertakings to increase its issued share capital;

(v) there are no acquisition rights and or obligations over authorised but unissued capital in existence, nor any undertakings to increase the capital; and

(vi) no capital of any member of the Group is under option or agreed conditionally or unconditionally to be put under option.

Evolution of Changes in the Company's Share Capital

The table below sets out the Company's share capital as at the Latest Practicable Date and as at 30 June 2019, 31 December 2018, 31 December 2017 and 31 December 2016:

Date	Number of A Shares	Share Capital Value (RMB)
31 December 2016	6,786,023,347	6,786,023,347.00
31 December 2017	6,786,023,347	6,786,023,347.00
31 December 2018	6,786,023,347	6,786,023,347.00
30 June 2019	6,786,023,347	6,786,023,347.00
As at the Latest Practicable Date	6,786,023,347	6,786,023,347.00

Rights, Preferences and Restrictions Attaching to Existing Shares

Shareholders of the Company shall enjoy rights and bear obligations according to the class and quantity of their Shares. Holders of the same class of Shares shall enjoy the same rights and bear the same obligations.

Voting rights

A shareholder (including its proxy) shall vote based on the number of its voting Shares, with one Share representing one vote. The Company's Shares which are held by the Company do not carry any voting rights and shall not be counted in the total number of voting Shares represented by shareholders attending a general meeting.

When material issues affecting the interests of minority shareholders are considered at a general meeting, the votes of minority shareholders shall be counted separately. The results of such separate votes shall be disclosed publicly in a timely manner following such general meeting.

When a related-party transaction is considered at a general meeting, related shareholder(s) are not permitted to vote, and the voting Shares held by such shareholder(s) shall not be counted in the total number of Shares with voting rights. The announcement of the resolutions of the general meeting shall fully disclose the voting of non-related shareholders.

Rights to dividends

The Company may distribute dividends in the form of cash, Shares, a combination of cash and Shares or other forms in accordance with laws and administrative regulations. Any proposed distribution of dividends shall be formulated by the Board of Directors of the Company and will be subject to the shareholders' approval.

According to the applicable PRC laws and the Articles of Association, the Company will pay dividends out of its after-tax profit only after it has made the following allocations:

- recovery of accumulated losses, if any;
- allocations to the statutory reserve fund equivalent to 10% of its after-tax profit, and, when the statutory reserve fund reaches and is maintained at or above 50% of the Company's registered capital, no further allocations to this statutory reserve fund will be required; and
- allocations, if any, to any optional reserve fund that are approved by the shareholders in a general meeting.

Subject to the aforesaid allocations and restrictions, the remaining after-tax profits of the Company shall be distributed as dividends to the shareholders pursuant to the ratio of their shareholding, unless otherwise provided by the Articles of Association of the Company.

Also, pursuant to its Articles of Association, under the circumstances where the Company records a positive profit for the year and has positive retained earnings, the Company is required to distribute cash dividends to its shareholders unless the Company plans to conduct major investment plan or make major cash expenditure in the next 12 months. Dividends distributed in cash during any three consecutive fiscal years should be in an amount no less than 30% of the average annual distributable profits of the same period.

Major investment plan or major cash expenditure refers to, among other things, the Company's plan to make investments, to purchase assets or equipment in the next 12 months (except those funded by proceeds from offering of securities), and the expenditure for such investment or purchase reaches or exceeds 30% of the Company's audited net assets for its latest financial period in aggregate or exceeds RMB500 million for any single investment or purchase.

In addition, upon the proposal by the Board of Directors and the approval by the general meeting, an interim dividend distribution may be made in the form of cash. The Company may distribute dividends in the form of Shares based on its annual profits and cash flow status.

The Board of Directors of the Company shall consider the nature of the industry, development stage, business model and profitability of the Company, whether the company has major capital expenditure arrangements, and other factors, and propose differentiated cash dividend distributions according to the procedures and situations stipulated in the Articles of Association:

- in the event that the Company is in a mature development stage and has no plan for major capital expenditure, cash dividends shall be at least 80% of the dividends to be distributed;
- in the event that the Company is in a mature development stage and has plans for major capital expenditure, cash dividends shall be at least 40% of the dividends to be distributed;
- in the event that the Company is in a growing development stage and has plans for major capital expenditure, cash dividends shall be at least 20% of the dividends to be distributed.

The development stage which the Company is in at the time of profit distribution shall be determined by the Board of Directors of the Company.

The Company's Board of Directors shall complete a dividend distribution within two months of the date that the general meeting passes the resolution for the proposed dividend distribution.

Other rights of shareholders

Besides the aforesaid voting rights and rights to dividends, the shareholders of the Company shall enjoy the following rights:

- to receive dividends and other forms of profit distribution in accordance with the number of Shares held;
- to lawfully request, convene, preside over general meetings, and attend general meetings in person or by proxy;

- to supervise, and make recommendations and inquiries on, the operations of the Company;
- to transfer, gift or pledge their Shares in accordance with laws, administrative regulations, and the Articles of Association;
- to inspect the Articles of Association, the shareholders' register, the Company's bond stubs, the minutes of the general meeting, the resolutions of the Board of Directors, the resolutions of the Supervisory Committee, and the Company's financial and accounting reports;
- upon termination or dissolution of the Company, to participate in the distribution of the remaining assets of the Company in proportion to the quantity of Shares held by them;
- to require the Company to buy back their Shares in the event of objection to resolutions of the general meetings concerning merger or division of the Company; and
- to enjoy other rights provided by laws, administrative regulations, departmental rules or the Articles of Association.

Provisions regarding redemption of Shares

The Company may and only may, in the following circumstances, buy back its issued Shares pursuant to laws, administrative regulations, departmental rules and the Articles of Association:

1. to reduce the registered capital of the Company;
2. to merge with another company that holds the Company's Shares;
3. to grant to employees as employee stock ownership plan or equity incentive plan;
4. from shareholders who object to the resolutions of the general meeting on merger or division of the Company and request the Company to buy back their Shares;
5. to use for the purposes of converting convertible corporate bonds issued by the Company;
6. when it is necessary to protect the Company and the rights and interests of its shareholders; and
7. other circumstance permitted by laws and administrative regulations.

In order for the Company to buy back Shares in the circumstances set out in paragraphs (1) or (2) (above) it must obtain a resolution of the general meeting; in order for the Company to buy back its shares for reason specified in item (3), (5) or (6) (above), the Company shall obtain a resolution of the general meeting or a resolution of the Board of Directors under the authorisation of the general meeting with more than two thirds of the directors present at the Board meeting.

In circumstances where the Company has bought back Shares: (a) pursuant to paragraph (1) (above), the Company shall cancel the relevant Shares within ten days from the date of the purchase; (b) pursuant to paragraphs (2) or (4) (above), the Company shall transfer or cancel the relevant Shares within six months from the date of purchase; (c) pursuant to paragraphs (3), (5) or (6) (above), the Company shall hold no more than 10% of the outstanding Shares from the Company and shall transfer or cancel the relevant Shares within three years from the date of purchase.

The Company may buy back its issued Shares by any of the following ways:

- buying back through public transaction on stock exchanges;
- buying back through tender offers;
- buying back by agreement without involving a stock exchange; and
- other forms approved by CSRC.

However, where the Company buys back Shares in the circumstances set out in paragraphs (3), (5), or (6) (above), the Company shall do so through public transactions.

Restrictions on free transferability of Shares

Subject to the following restrictions and save as otherwise specified by the state laws, administrative regulations, and relevant provisions, Shares of the Company may be transferred freely and without any liens:

- the Company shall not accept its own Shares as the subject matter of a pledge;
- the Directors, Supervisors and senior management officers of the Company shall report to the Company their shareholdings and any changes thereto and shall not transfer more than 25% of the Shares they hold per annum during their terms of office; the Shares they hold in the Company shall not be transferred within one year from the date that the Shares of the Company are listed or within the six-month period following any termination of their service/employment with the Company; and
- if the Company's Directors, Supervisors, senior management officers, and shareholders holding 5% or more of the Shares of the Company sell Shares within six months after buying the same or buy Shares within six months after selling the same, the earnings arising therefrom shall belong to the Company and the Board shall recover such earnings. However, this six-month restriction shall not apply to any sale of Shares by a securities firm holding 5% or more of the Company's Shares as a result of it having underwritten and purchased Shares not sold pursuant to an offering.

Rules relating to mandatory takeover bids and/or squeeze-out and sell-out in relation to Shares

Pursuant to the Measures for the Administration of Acquisition of Listed Companies (上市公司收购管理办法) promulgated by the CSRC and last amended in October 2014 (the "**PRC Takeover Rules**"), any person (the "**offeror**") who holds, controls or beneficially owns 30% or more of the shares in a company listed in the PRC (including the Company) and who wishes to further acquire additional shares in the listed company must (unless a waiver is granted by the CSRC or an exemption is available) do so through a tender offer to all other shareholders of the listed company to purchase:

- all or a specified percentage of their shares in the listed company, if the offeror is a direct shareholder of the listed company; or
- all their shares, if the offeror indirectly controls or holds the beneficial ownership of its existing shares through investments, agreements or other arrangements.

The offeror must notify the target company, publish a takeover alert, and prepare and publish a tender offer report.

Pursuant to the PRC Takeover Rules, shares proposed to be purchased through a tender offer must be no less than 5% of the outstanding shares of the listed company. The offeror must treat all shareholders of the listed company equally, and the offer price must be no less than the highest price the offeror has paid for the acquisition of the shares in the same listed company during the six months prior to its publication of the takeover alert. Unless there is a competing tender offer to acquire the same listed company, the offer period must be no less than 30 days and no more than 60 days. During the offer period specified in the tender offer report, the offeror may not cancel the tender offer, sell any shares in the listed company, or purchase any shares in the listed company through any other means. Any competing tender offer to acquire the same listed company must be made prior to the 15th day prior to the end of the offer period. Unless there is a competing tender offer to acquire the same listed company, the offeror may not change the terms of the tender offer during the last 15 days of the offer period.

If an offeror cancels the proposed tender after the publication of a takeover alert and prior to the publication of the tender offer report, such offeror may not acquire the same listed company within the 12 months upon the publication of the takeover alert.

Any shareholder may indicate acceptance of the offer during the offer period, which may be withdrawn up to the third trading day prior to the end of the offer period. The shareholder who has indicated its acceptance of the tender offer may not transfer its shares unless such indication is withdrawn.

There are other laws and regulations regulating certain aspects of takeovers, including the laws and regulations on insider dealing, disclosure of inside information and disclosure of interest in shares.

So far as the Company is aware, there has been no public takeover bid by third parties in respect of the Company's Shares that occurred during the year ended 31 December 2018 nor in the period from 1 January 2019 to the date of this Registration Document.

BDO China Shu Lun Pan Certified Public Accountants LLP, independent auditors, has a business licence issued by State Administration for Industry and Commerce of the People's Republic of China, and recorded by the MOF and the Chinese Institute of Certified Public Accountants, and has audited the consolidated financial statements of the Group as at and for the three years ended 31 December 2016, 31 December 2017 and 31 December 2018.

BDO LLP has given and not withdrawn its written consent to the inclusion of its accountant's report on page F-2 of this Registration Document and its review report on page F-90 of this Registration Document and has authorised the contents of its reports for the purposes of item 1.3 of Annex 1 of Commission Delegated Regulation (EU) 2019/980 (the "**Delegated Regulation**"). Written consent for the purposes of the Delegated Regulation is different from a consent filed with the Securities and Exchange Commission of the United States under Section 7 of the Securities Act. BDO LLP has not filed a consent under Section 7 of the Securities Act. BDO LLP has no material interest in the Company.

For the purposes of item 1.2 of Annex 1 of the Delegated Regulation, BDO LLP accepts responsibility for its accountant's report on page F-2 of this Registration Document and its review report on page F-90 of this Registration Document as part of this Registration Document and declares that, to the best of its knowledge, the information contained in its accountant's report on page F-2 of this Registration Document and its review report on page F-90 of this Registration Document is in accordance with the facts and that such parts of this Registration Document make no omission likely to affect their import. This declaration is included in this Registration Document in compliance with item 1.2 of Annex 1 of the Delegated Regulation.

1. **Documents Available for Inspection**

The following documents will be available for inspection free of charge at www.sdicpower.com/en for a period of 28 days from the date of publication of this Registration Document:

- this Registration Document;
- the Articles of Association of the Company; and
- each of the accountant's report on page F-2 of this Registration Document and the review report on page F-90 of this Registration Document prepared, in each case, by BDO LLP; and
- the Frost & Sullivan Report.

The Company's registered office is located at Room 1108, Floor 11, 147 Xizhimen Nanxiao Street, Xicheng District, Beijing, PRC. Telephone: +86 10 8800 6378.

2. **Legal Entity Identifier**

The legal entity identifier of the Company is 300300LQJ91PHBNFC721.

3. **Website**

The Company's website address is www.sdicpower.com. The information on the Company's website does not form part of this Registration Document.

4. **Legal and Arbitration Proceedings**

There are no governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which the Company is aware) during the 12 months preceding the date of this Registration Document which may have, or have had in the recent past a significant effect on the Company's and/or the Group's financial position or profitability.

5. **Significant Change**

There has been no significant change in the financial position or financial performance of the Group since 30 June 2019, being the end of the last financial period for which financial information has been published.

6. **Subsidiaries**

The Company is a parent company of a corporate group that comprises other companies. Further detail on the Company's significant subsidiaries as at the Latest Practicable Date is provided below.

Name of subsidiary (full name)	Country of Incorporation/Residence	Percentage Ownership (%)
SDIC New Energy Investment Co., Ltd.	China	64.9
SDIC Jinneng Electric Power Co., Ltd.	China	64
SDIC Qinzhou Electric Power Co., Ltd.	China	61
SDIC Gansu Xiaosanxia Power Co., Ltd.	China	60.45
SDIC Yili Energy Development Co., Ltd.	China	60
Xiamen Huaxia International Power Development Co., Ltd.	China	56
SDIC Beibuwan Electric Power Co., Ltd.	China	55
SDIC Panjiang Electric Power Co., Ltd.	China	55
Yalong River Hydropower Development Co., Ltd.	China	52
Jingyuan Second Power Co., Ltd.	China	51.22
SDIC Xuancheng Electric Power Co., Ltd.	China	51
SDIC Yunding Meizhouwan Electric Power Co., Ltd.	China	51
SDIC Yunnan Dachaoshan Hydropower Co., Ltd.	China	50
Yunnan Metallurgical New Energy Co., Ltd.	China	100

7. **Material Contracts**

In the two years immediately preceding the date of this Registration Document, other than contracts entered into in the ordinary course of business, there have not been any material contracts to which the Company or any member of the Group are a party. There are no contracts, other than contracts entered into in the ordinary course of business, to which the Company or any member of the Group are a party, which contain any provision under which any member of the Group has any obligation or entitlement which is material to the Group as at the date of this Registration Document.

8. **Securities**

The Company has not issued any partly paid shares nor any convertible securities, exchangeable securities or securities with warrants. The Company does not hold any shares in treasury. There are no shares in the Company's issued share capital that do not represent capital.

9. **Takeover Bids**

No public takeover bids by third parties in respect of the Company's capital have occurred during the last financial year or as at the date of this Registration Document.

10. **Frost & Sullivan Report**

Frost & Sullivan has given and has not withdrawn its written consent to the inclusion in this Registration Document of information extracted from the Frost & Sullivan Report it prepared at the request of the Company, as sourced to Frost & Sullivan in the "*Industry Overview*" section. Frost & Sullivan has authorised the content of such information for the purposes of this Registration Document. Frost & Sullivan accepts responsibility for such information, and such information is, to the best of the knowledge of Frost & Sullivan, in accordance with the facts and contains no omission likely to affect its import. Frost & Sullivan has no material interest in the Company.

The following set outs certain defined terms, technical and other power related terms that are used throughout this Registration Document:

"**A share(s)**"	shares of any company that are traded on the Shanghai Stock Exchange or the Shenzhen Stock Exchange in Renminbi
"**A Shares**"	domestic shares of the Company, with a par value of RMB 1.00 each, which are subscribed for or credited as paid up in Renminbi and are listed for trading on the Shanghai Stock Exchange
"**Annual Historical Financial Information**"	the Group's consolidated annual financial statements as at and for the years ended 31 December 2016, 31 December 2017 and 31 December 2018
"**attributable installed capacity**"	calculated by multiplying the Group's equity interest (whether or not such interest is a controlling interest) in the power generation projects by their installed capacity, usually denominated in MW
"**Auditor**"	BDO China Shu Lun Pan Certified Accountants LLP
"**average installed capacity**"	the aggregate daily consolidated installed capacity in a specified period and divided by the number of days in the period
"**average utilisation hours**"	the consolidated gross power generation in a specified period (in MWh or GWh) divided by the average consolidated installed capacity in the same period (in MW or GW)
"**Board**"	the Board of Directors
"**benchmark pricing**"	a pricing strategy in which the price is calculated periodically based on the average operating costs of power stations of different categories
"**Board**" or "**Board of Directors**"	the board of directors of the Company
"**CAGR**"	compound annual growth rate
"**capacity**"	if used alone, is an abbreviated form of installed capacity for operating projects, additional consolidated capacity for projects under construction or pipeline projects (as the case may be), usually denominated in MW
"**capacity under construction**"	the additional installed capacity for projects under construction, usually denominated in MW

"**CfD**"	Contracts for Difference, government's mechanism for supporting low-carbon electricity generation
"**China" or "PRC**"	the People's Republic of China, and for the sole purpose of this Registration Document and by reference to region, excluding Taiwan, the Macau Special Administrative Region of the PRC and Hong Kong Special Administrative Region of the PRC
"**clean energy**"	energy, that when generated, causes little or no harm to the environment. The Group's hydropower, wind power and solar power generating projects are considered to be clean energy projects
"**Company**" or "**SDIC Power**"	SDIC Power Holdings CO., LTD, a joint stock company incorporated in the People's Republic of China with limited liability under the corporate name 国投电力控股股份有限公司 (SDIC Power Holdings CO., LTD), converted from its predecessor SDIC Huajing Power Holdings Co., Ltd. (国投华靖电力控股股份有限公司) on 28 February 2012, the A Shares of which have been listed on the Shanghai Stock Exchange since 2002 (Stock Code: 600886) after SDIC injected certain power generating assets to a then listed company pursuant to an asset swap agreement. Unless the context otherwise requires, it includes its predecessor
"**consolidated installed capacity**"	the aggregate amount of installed capacity of the Group's operating power generation projects that it fully consolidates in its consolidated financial statements
"**cost-plus pricing**"	a pricing strategy in which the selling price is determined by adding a specific amount markup to a product's unit cost
"**CSDC**"	China Securities Depositary and Clearing Corporation Limited (中国证券登记结算有限公司)
"**CSRC**"	the China Securities Regulatory Commission (中国证券监督管理委员会)
"**Delegated Regulation**"	means Commission Delegated Regulation (EU) 2019/980
"**Director(s)**"	director(s) of the Company
"**dispatch**"	the process of apportioning the total demand of the grid through the issuance of dispatch instructions to the scheduled generating units and the generating units providing ancillary services in order to achieve the operational requirements of balancing demand with generation that will ensure the security of the grid

"EEA"	European Economic Area
"EIT"	the enterprise income tax of the PRC
"Ertan Hydropower"	Ertan Hydropower Development Company Limited (二滩水电开发有限责任公司), the predecessor of Yalong River Hydropower
"**expected additional consolidated capacity**"	the total capacity of the Group's power generation projects under construction or its pipeline projects, usually denominated in MW
"FCA"	the United Kingdom Financial Conduct Authority
"Frost & Sullivan"	Frost & Sullivan (Beijing) Inc., Shanghai Branch Co.
"**Frost & Sullivan Report**"	A report prepared by Frost & Sullivan at the request of the Group for the purposes of this Registration Document, dated 28 October 2019, on the Group and the markets in which it operates.
"FSMA"	the Financial Services and Markets Act 2000, as amended
"**Fujian Pacific**"	Fujian Pacific Electric Co., Ltd. (福建太平洋电力有限公司), a company incorporated in the PRC and a subsidiary of the Company
"GBP"	pound sterling, the lawful currency of the UK
"GDP"	gross domestic product (except as otherwise specified, all references to GDP growth rates are to real as opposed to nominal rates of GDP growth)
"**gross generation**" or "**gross electricity generated**"	for a specified period, the total amount of electricity produced by a power generating project during that period
"Group"	the Company and its consolidated subsidiaries
"GW"	gigawatt, a unit of power. 1 GW = 1,000 MW
"GWh"	gigawatt-hour, a unit of energy. 1 GWh = 1 million kWh
"**Huaxia Power**"	Xiamen Huaxia International Power Development Co., Ltd. (厦门华夏国际电力发展有限公司), a company incorporated in the PRC and a subsidiary of the Company
"**Historical Financial Information**"	the Annual Historical Financial Information and the Interim Historical Financial Information
"HMRC"	Her Majesty's Revenue & Customs

"IASB"	International Accounting Standards Board
"IFRS"	International Financial Reporting Standards issued by the IASB
"installed capacity"	the rated output of power generation projects that have started to produce electricity, usually denominated in MW
"Interim Historical Financial Information"	the Group's consolidated condensed interim financial statements as at and for the six months ended 30 June 2019 (together with comparative financial information for the six months ended 30 June 2018) prepared in accordance with IAS 34 as issued by the IASB
"Jaderock Investment"	Jaderock Investment Singapore Pte. Ltd., a company incorporated in Singapore and a subsidiary of the Company
"Jingyuan Second Power"	Jingyuan Second Power Co., Ltd. (靖远第二发电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"Jin-Guan Hydropower Project Group"	A group of hydropower projects consisting of Jinping I, Jinping II and Guandi hydropower projects.
"kg"	kilogram, a unit of weight. 1 kg = 1,000 g
"km"	kilometre, a unit of length. 1 km = 1,000 m
"kV"	kilovolt, a unit of voltage. 1 kV = 1,000 volts
"kW"	kilowatt, a unit of power. 1 kW = 1,000 watts
"kWh"	kilowatt-hour, a unit of energy. The standard unit of energy used in the electric power industry. One kilowatt-hour is the amount of energy that would be produced by a power generator producing one thousand watts for one hour
"Latest Practicable Date"	24 October 2019
"major subsidiaries"	Yalong River Hydropower, SDIC Dachaoshan, SDIC Xiaosanxia, SDIC Jinneng, SDIC Qinzhou, SDIC Genting Meizhouwan, Huaxia Power, SDIC Xuancheng, SDIC Yili, SDIC Panjiang, SDIC Beibuwan, SDIC New Energy, Yunnan Metallurgical New Energy, Jaderock Investment and Redrock Investment
"MEE"	Ministry of Ecology and Environment of the PRC (中华人民共和国生态环境部), formerly known as Ministry of Environmental Protection of the PRC (中华人民共和国环境保护部) ("MEP")

"**MLR**"	Ministry of Land and Resources of the PRC (中华人民共和国国土资源部)
"**MNR**"	Ministry of Natural Resources of the PRC (中华人民共和国自然资源部), formerly known as Ministry of Land and Resources of the PRC (中华人民共和国国土资源部) ("MLR")
"**MOF**"	Ministry of Finance of the PRC (中华人民共和国财政部)
"**MOFCOM**"	Ministry of Commerce of the PRC (中华人民共和国商务部)
"**MW**"	megawatt, a unit of power. 1 MW = 1,000 kW. The capacity of a power generation project is generally expressed in MW
"**MWh**"	megawatt-hour, a unit of energy. 1 MWh = 1,000 kWh
"**NDRC**"	National Development and Reform Commission of the PRC (中华人民共和国国家发展和改革委员会)
"**NEA**"	the National Energy Administration (中华人民共和国国家能源局)
"**net generation**" or **"net electricity generated"**	Net energy delivered by a seller to the agreed delivery point, usually denominated in GWh or TWh
"**net standard coal consumption rate**"	a measure of standard coal usage in generating power calculated by dividing the weight of standard coal consumed by the quantity of electricity produced, usually denominated in kg per kWh
"**offtake**" or "**offtaker**"	net generation taken or power purchaser that takes net generation
"**on-grid tariff**"	the wholesale price at which power companies sell the power they generate to grids
"**PBOC**"	the People's Bank of China (中国人民银行)
"**pipeline projects**"	power generation projects that the Group identified and reserved for future development
"PPA"	a power purchase agreement entered into between a power producer and a power grid company or an end user
"**PRC**" or "**China**"	the People's Republic of China
"**PRC Company Law**"	Company Law of the People's Republic of China (中华人民共和国公司法), as amended and adopted by the

	Standing Committee of the Tenth National People's Congress on 27 October 27 2005 and effective on 1 January 2006, as amended, supplemented or otherwise modified from time to time, which was further amended on 28 December 2013 and became effective on 1 March 2014
"**Prospectus Regulation**"	Regulation (EU) 2017/1129 as amended from time to time
"**Prospectus Regulation Rules**"	the Prospectus Regulation Rules made by the FCA under Part VI of the FSMA
"**Redrock Investment**"	Redrock Investment Limited, a company incorporated in the UK and a subsidiary of the Company
"**regulating capacity**"	the ability of a reservoir to regulate water flow in the river primarily based on capacity of reservoir storage and the water flow in the river, usually dominated in m^3. Seasonal, annual or multi-year regulating reservoir refers to a reservoir that can store water for a season, a year or more than a year, respectively
"**renewable energy**"	any energy resource that is naturally regenerated over a short time scale and derived directly from the sun (such as thermal, photochemical, and photoelectric), indirectly from the sun (such as wind, and photosynthetic energy stored in biomass), or from other natural movements and mechanisms of the environment (such as geothermal, hydro power and tidal energy). Renewable energy does not include energy resources derived from fossil fuels, waste products from fossil sources, or waste products from inorganic sources.
"**RMB**" or "**Renminbi**"	the lawful currency of the PRC
"**Reporting Accountant**"	BDO LLP
"**ROC**"	Renewables Obligations Certificate
"**SAFE**"	State Administration of Foreign Exchange (中华人民共和国国家外汇管理局)
"**SASAC**"	State-owned Assets Supervision and Administration Commission of the State Council (国务院国有资產监督管理委员会)
"**SDIC**"	State Development & Investment Corp., Ltd. (国家开发投资集团有限公司), the controlling shareholder of the Company

"SDIC Axe New Energy"	SDIC New Energy Co., Ltd. (国投阿克塞新能源有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Baiyin"	SDIC Baiyin Wind Power Co., Ltd. (国投白银风电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Beibuwan"	SDIC Beibuwan Electric Power Co., Ltd. (国投北部湾发电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Chuxiong"	SDIC Chuxiong Wind Power Co., Ltd. (国投楚雄风电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Dachaoshan"	SDIC Yunnan Dachaoshan Hydropower Co., Ltd. (国投云南大朝山水电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Dali"	SDIC Dali Solar Power Co., Ltd. (国投大理光伏发电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Dunhuang"	SDIC Dunhuang Solar Power Co., Ltd. (国投敦煌光伏发电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Genting Meizhouwan"	SDIC Genting Meizhou Wan Electric Power Co., Ltd. (国投云顶湄洲湾电力有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Golmud"	SDIC Golmud Solar Power Co., Ltd. (国投格尔木光伏发电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Guangxi"	SDIC Guangxi Wind Power Co., Ltd. (国投广西风电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Hami"	SDIC Hami Wind Power Co., Ltd. (国投哈密风电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Jinneng"	Tianjin SDIC Jinneng Electric Power Co., Ltd. (天津国投津能发电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Jiuquan First"	SDIC Jiuquan First Wind Power Co., Ltd. (国投酒泉第一风电有限公司), a company incorporated in the PRC and a subsidiary of the Company

"SDIC Jiuquan Second"	SDIC Jiuquan Second Wind Power Co., Ltd. (国投酒泉第二风电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC New Energy"	SDIC New Energy Co., Ltd. (国投新能源投资有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Panjiang"	SDIC Panjiang Electric Power Co., Ltd. (国投盘江发电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Qinghai"	SDIC Qinghai Wind Power Co., Ltd. (国投青海风电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Qinzhou"	SDIC Qinzhou Electric Power Co., Ltd. (国投钦州发电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Shizuishan"	SDIC Shizuishan Solar Power Co., Ltd. (国投石嘴山光伏发电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Turpan"	SDIC Turpan Wind Power Co., Ltd. (国投吐鲁番风电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Xiaosanxia"	SDIC Gansu Xiaosanxia Power Co., Ltd. (国投甘肃小三峡发电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Xuancheng"	SDIC Xuan Cheng Electric Power Co., Ltd. (国投宣城发电有限责任公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Yili"	SDIC Yili Energy Development Co., Ltd. (国投伊犁能源开发有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDIC Yunnan"	SDIC Yunnan Wind Power Co., Ltd. (国投云南风电有限公司), a company incorporated in the PRC and a subsidiary of the Company
"SDRT"	stamp duty reserve tax

"Securities Act"	the United States Securities Act of 1933, as amended
"SERC"	State Electricity Regulatory Commission of the PRC (中华人民共和国国家电力监管委员会)
"Shanghai Stock Exchange"	the Shanghai Stock Exchange
"Shares"	A Shares
"solar power"	solar photovoltaics
"standard coal"	coal with an energy content of 7,000 kcal/kg
"storage capacity"	the ability of a reservoir to collect and store water, usually dominated in m^3
"supercritical"	refers to power generating units capable of operating at temperatures above 374.12°C and pressures above 22.129MPa, being the critical point of water
"Supervisor(s)"	member(s) of the Company's Supervisory Committee
"technically developable capacity"	the amount of the gross theoretical capacity that can be developed within the limits of current technology
"Toksun Tianhe"	Toksun Tianhe Solar Power Co., Ltd. (托克逊县天合光能有限责任公司), a company incorporated in the PRC and a subsidiary of the Company
"tonne"	metric tonne
"TWh"	terawatt-hour, a unit of energy. 1 TWh = 1 billion kWh
"**UK**" or "**United Kingdom**"	the United Kingdom of Great Britain and Northern Ireland
"**US**" "**U.S.**" or "**United States**"	the United States of America, its territories, its possessions and all areas subject to its jurisdiction
"**US$**" or "**US Dollars**"	the lawful currency of the United States of America
"ultra-low emissions"	the emissions for dust, sulfur dioxide and oxynitride (measured in way of NO2) are within 5 mg/m^3, 35 mg/m^3 and 50 mg/m^3, respectively, which is the national special limitation for air pollutants for gas-fired power generation units
"ultra-supercritical"	refers to power generating units capable of operating at temperatures above 580°C and pressures above 27Mpa, higher than those of supercritical generating units

"**unit gross profit**"	a measure of the profitability of hydropower projects of power generation companies. It is calculated by dividing the gross profit of hydropower projects by average of beginning and ending balance of consolidated installed capacity of hydropower projects during the reference year
"**utilisation hours**"	reflects the total average generating hours of the Group's power generating assets, calculated by dividing the gross generation in a specified period divided by the average installed capacity in such period
"**VAT**"	value-added tax
"**water-flow regulating capabilities**"	the ability of a reservoir to regulate water flow in the river primarily based on capacity of reservoir storage and the water flow in the river. Quarter, annual or multi-year regulating reservoir refers to a reservoir that can store water for a season, a year or more than a year, respectively
"**Yalong River Mianning New Energy**"	Yalong River Mianning New Energy Co., Ltd. (托克逊县天合光能有限责任公司), a company incorporated in the PRC and a subsidiary of the Company
"**Yalong River Huili New Energy**"	Yalong River Huili New Energy Co., (雅砻江会理新能源有限责任公司), a company incorporated in the PRC and a subsidiary of the Company
"**Yalong River Hydropower**"	Yalong River Hydropower Development Company, Ltd. (雅砻江流域水电开发有限公司), a company incorporated in the PRC and a subsidiary of the Company, previously known as Ertan Hydropower
"**Yunnan Metallurgical New Energy**"	Yunnan Metallurgical New Energy Co., Ltd. (云南冶金新能源股份有限公司), a company incorporated in the PRC and a subsidiary of the Company
"**%**"	per cent.
"**sq. m.**" or "**m^2**"	square metre(s)
"**m**"	metre(s)
"**m^3**"	cubic metre(s)

INDEX TO HISTORICAL FINANCIAL INFORMATION

Annual Historical Financial Information of the Group as at and for the three years ended 31 December 2016, 31 December 2017 and 31 December 2018

Interim Historical Financial Information of the Group as at and for the six months ended 30 June 2019

Report on Annual Historical Financial Information

BDO LLP
55 Baker Street
London
W1U 7EU

The Directors
SDIC Power Holdings CO., LTD
12F, No. 147 Building
Xizhimen Nanxiao Street
Xicheng District
Beijing 100034

29 October 2019

Dear Sir or Madam

SDIC Power Holdings CO., LTD (the "Company") and its subsidiaries (together, the "Group")

Introduction

We report on the financial information set out on pages F-4 to F-89 for the Group. This financial information has been prepared for inclusion in the registration document dated 29 October 2019 of the Company (the "Registration Document") on the basis of the accounting policies set out in note 3 to the financial information. This report is required by item 18.1 of annex 1 of the Commission Delegated Regulation (EU) No. 2019/980 supplementing Commission Regulation (EU) No. 2017/1129 (the "Delegated Regulation") and is given for the purpose of complying with that item and for no other purpose.

Responsibilities

The directors of the Company are responsible for preparing the financial information in accordance with International Financial Reporting Standards as adopted by the European Union.

It is our responsibility to form an opinion on the financial information and to report our opinion to you.

Save for any responsibility arising under item 1.2 of annex 1 of the Delegated Regulation to any person as and to the extent there provided, to the fullest extent permitted by the law we do not assume any responsibility and will not accept any liability to any other person for any loss suffered by any such other person as a result of, arising out of, or in connection with this report or our statement, required by and given solely for the purposes of complying with item 1.3 of annex 1 of the Delegated Regulation, consenting to its inclusion in the Registration Document.

Basis of opinion

We conducted our work in accordance with Standards for Investment Reporting issued by the Auditing Practices Board in the United Kingdom. Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. It also included an assessment of significant estimates and judgements made by those responsible for the preparation of the financial information and whether the accounting policies are appropriate to the entity's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial information is free from material misstatement whether caused by fraud or other irregularity or error.

Our work has not been carried out in accordance with auditing or other standards and practices generally accepted in the United States of America or other jurisdictions outside the United Kingdom and accordingly should not be relied upon as if it had been carried out in accordance with those standards and practices.

Opinion

In our opinion, the financial information gives, for the purposes of the Registration Document, a true and fair view of the state of affairs of the Group as at 31 December 2016, 31 December 2017 and 31 December 2018 and of its results, cash flows, and changes in equity for the years ended 31 December 2016, 31 December 2017 and 31 December 2018 in accordance with International Financial Reporting Standards as adopted by the European Union.

Declaration

For the purposes of item 1.2 of annex 1 of the Delegated Regulation, we are responsible for this report as part of the Registration Document and declare that to the best of our knowledge, the information contained in this report is in accordance with the facts and makes no omission likely to affect its import. This declaration is included in the Registration Document in compliance with item 1.2 of annex 1 of the Delegated Regulation.

Yours faithfully

BDO LLP
Chartered Accountants

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127)

Consolidated statement of profit or loss and other comprehensive income
For the three years ended 31 December 2016, 31 December 2017 and 31 December 2018

	Notes	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)
Continuing operations				
Revenue	5	41,011.4	31,643.1	29,270.8
Cost of sales		(24,440.2)	(18,802.8)	(15,100.6)
Gross profit		16,571.2	12,840.3	14,170.2
Administrative cost	10	(1,206.4)	(999.1)	(935.5)
Taxes and surcharges	10	(961.7)	(563.6)	(457.6)
Distribution cost		(6.6)	(7.6)	(6.0)
Impairment of financial assets	10	5.7	(42.6)	(550.7)
Impairment of property, plant and equipment, inventory and intangibles	10	(401.7)	(59.4)	(15.0)
Other income and expense	7	171.8	878.5	946.2
Operating profit		14,172.3	12,046.5	13,151.6
Shares of profits of associates		521.5	345.7	631.2
Investment (loss)/income		0.5	(0.1)	176.5
Fair value movements on financial instrument measured at fair value through profit and loss		44.7	—	—
Finance income	8	86.0	51.1	56.8
Finance costs	8	(5,157.1)	(4,928.9)	(5,099.0)
Profit before tax from continuing operations		9,667.9	7,514.3	8,917.1
Income tax expense	11	(1,352.3)	(954.8)	(1,057.5)
Profit for the year from continuing operations		8,315.6	6,559.5	7,859.6
Profit for the year		8,315.6	6,559.5	7,859.6
Other comprehensive income				
Items that will or may be reclassified to profit and loss				
Shares of other comprehensive income of associates		42.5	28.3	78.5
Valuation (losses)/gains in fair value through other comprehensive income		(1.3)	0.4	—
Exchange differences on translating foreign operations		19.2	(15.4)	3.9
Other comprehensive income net of tax		60.4	13.3	82.4
Total comprehensive income for the year		8,376.0	6,572.8	7,942.0
Profit for the year attributable to:				
Owners of the Company		4,329.2	3,232.3	3,916.4
Non-controlling interests		3,986.4	3,327.2	3,943.2
Total comprehensive income for the year attributable to:				
Owners of the Company		4,389.5	3,245.6	3,999.8
Non-controlling interests		3,986.5	3,327.2	3,942.2
		RMB	RMB	RMB
Earnings per share				
Basic and diluted:				
From continuing and discontinued operations	12	0.6205	0.4763	0.5771
From continuing operations	12	0.6205	0.4763	0.5771

Consolidated statement of financial position
As at 31 December 2016, 31 December 2017 and 31 December 2018

	Notes	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)	As at 1 January 2016 RMB (m)
Assets					
Non-current assets					
Property, plant and equipment	14	187,818.7	183,190.8	179,970.5	166,269.0
Investment properties	15	103.1	110.1	116.0	253.2
Intangible assets	16	2,007.4	2,032.5	2,258.6	2,368.9
Goodwill	17	409.4	414.2	401.6	5.2
Investments in associates	19	10,523.8	8,729.6	8,846.8	2,639.0
Fair value through other comprehensive income investments	20	188.8	95.3	90.0	289.0
Long-term receivable	21	1,126.6	530.7	517.9	—
Deferred tax assets	22	287.7	237.4	205.3	153.0
Other non-current assets	23	993.4	664.8	256.8	—
Total non-current assets		203,458.9	196,005.4	192,663.5	171,977.3
Current assets					
Inventories	24	1,516.7	1,183.2	1,068.1	845.4
Accounts and notes receivables	25	5,813.0	4,036.2	3,028.5	2,645.0
Prepayments and other receivables	26	456.2	540.2	471.7	1,741.8
Tax recoverable	27	1,146.4	1,384.9	1,711.3	710.0
Cash and cash equivalents	28	7,470.0	4,972.4	4,154.3	6,123.4
Restricted deposits	29	130.5	158.3	186.3	203.4
Fair value through profit and loss investment	30	844.7	—	—	—
Other current assets	31	0.1	7.4	7.3	8.5
Total Current assets		17,377.6	12,282.6	10,627.5	12,277.5
TOTAL ASSETS		220,836.5	208,288.0	203,291.0	184,254.8
EQUITY AND LIABILITIES					
Equity					
Equity attributable to owners of the Company					
Share capital	32	6,786.0	6,786.0	6,786.0	6,786.0
Other equity instruments	33	3,999.0	—	—	—
Reserves	34	8,359.8	7,963.5	7,621.8	7,281.6
Retained earnings/(accumulated losses)		18,546.9	15,805.8	14,272.6	12,510.8
Equity attributable to owners of the Company		37,691.7	30,555.3	28,680.4	26,578.4
Non-controlling interests	35	32,491.4	30,152.3	28,037.4	24,811.2
Total equity		70,183.1	60,707.6	56,717.8	51,389.6
Non-Current liabilities					
Long-term loans	36	111,704.1	108,886.8	103,535.5	91,632.0
Long-term bonds	37	2,200.0	3,000.0	3,000.0	1,800.0
Long-term payable	38	514.6	489.9	520.0	486.8
Lease liabilities	38	392.5	357.8	1,777.0	2,657.2
Provision	39	415.2	514.7	652.8	—
Deferred income	40	210.5	233.8	243.6	249.3
Deferred tax liabilities	22	47.0	41.6	31.1	41.4
Total non-Current liabilities		115,483.9	113,524.6	109,760.0	96,866.7
Current liabilities					
Accounts and notes payables	41	5,507.3	6,237.8	6,968.5	5,121.0
Other payables	42	5,758.1	7,131.4	7,829.0	7,819.2
Taxes payables	43	1,135.1	732.6	730.0	294.1
Dividends payables		260.7	5.2	168.5	142.9
Short-term loans	44	5,764.1	4,741.3	7,917.9	8,021.0
Short-term bonds	45	1,000.0	1,200.0	4,500.0	3,500.0
Current portion of long-term liabilities	46	15,744.2	14,007.5	8,699.3	11,100.3
Total Current liabilities		35,169.5	34,055.8	36,813.2	35,998.5
Total liabilities		150,653.4	147,580.4	146,573.2	132,865.2
TOTAL EQUITY AND LIABILITIES		220,836.5	208,288.0	203,291.0	184,254.8

Consolidated statement of cash flows
For the three years ended 31 December 2016, 31 December 2017 and 31 December 2018

	Notes	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)
Cash flows from operating activities				
Profit for the year		8,315.6	6,559.5	7,859.6
Adjustments for:				
Depreciation of property, plant and equipment	14	6,908.9	6,348.3	5,837.6
Impairment of property, plant and equipment	14	272.7	59.4	9.1
Amortisation of intangible assets	16	287.3	274.1	260.7
Impairment losses of Intangibles	16	122.9	—	—
Impairment losses of others		0.4	42.6	556.6
Finance income	8	(86.0)	(51.1)	(56.8)
Finance expense	8	5,098.4	4,872.8	5,033.6
Share of post-tax profits of equity accounted associates	19	(521.5)	(345.7)	(631.2)
Disposal of associates		—	0.1	(88.2)
Income from investment of fair value through other comprehensive		—	—	(88.3)
Investment income		(0.5)	—	—
Fair value change income		(44.7)	—	—
Loss/(gain) on the scrap of fixed assets		17.4	89.4	34.9
Loss/(gain) on sale of property, plant and equipment		(4.8)	(3.3)	2.6
Income tax expense		1,352.3	954.8	1,057.5
Decrease/(increase) in trade and other receivables		(1,638.9)	(1,033.9)	226.2
Decrease/(increase) in inventories	24	(333.5)	(115.1)	(222.7)
Increase/(decrease) in trade and other payables		725.8	1,735.4	(121.0)
Increase/(decrease) in provisions	39	(142.2)	(143.4)	426.6
Increase/(decrease) in employee benefit	42	34.4	(105.3)	(15.1)
Cash generated from operations		20,364.0	19,138.6	20,081.7
Income taxes paid		(1,231.1)	(1,048.7)	(1,072.0)
Net cash flows from operating activities		19,132.9	18,089.9	19,009.7
Investing activities				
Acquisition of subsidiary, net of cash acquired		(943.8)	(17.0)	(1,425.7)
Disposal of subsidy, net of cash acquired		(8.2)	6.0	(103.3)
Purchases of property, plant and equipment		(10,189.3)	(11,615.1)	(17,198.8)
Purchase of intangibles		(55.4)	(39.6)	(110.5)
Disposal of property, plant and equipment and other long-term assets		20.3	10.5	0.5
Purchases of associates		(1,485.1)	—	(5,001.1)
Purchases of Fair value through profit and loss		(800.0)	—	—
Loan made to shareholder		—	—	(439.9)
Shareholder loan to associates		(519.7)	—	—
Interest received		86.0	51.1	56.8
Dividends from associates		303.8	458.1	714.5
Other cash outflows related to investing activities		(25.0)	20.7	82.5
Net cash flows from investing activities brought forward		(13,616.4)	(11,125.3)	(23,425.0)

Consolidated statement of cash flows
For the three years ended 31 December 2016, 31 December 2017 and 31 December 2018 (continued)

	Notes	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)
Financing activities				
Issue of ordinary shares to non-controlling interests		1,499.5	1,954.1	3,031.0
Issue of other equity instruments		3,999.2	—	—
Fiscally subsidized interest rate of subsidiaries		35.1	26.8	25.0
Dividends paid to the holders of the parent		(1,131.2)	(1,370.8)	(1,899.6)
Dividends paid to non-controlling interests		(2,911.7)	(3,358.2)	(3,720.8)
Proceeds from loans and borrowings	51	28,586.6	29,839.6	42,582.7
Repayment of loans and borrowings	51	(26,678.2)	(27,239.4)	(31,887.6)
Interest paid on loans and borrowings		(6,304.7)	(5,917.0)	(5,640.1)
Financial charges		(59.7)	(73.4)	(48.8)
Cash paid for acquisition of minority shares		(60.2)	—	—
Net cash (used in)/from financing activities		(3,025.3)	(6,138.3)	2,441.8
Net increase in cash and cash equivalents		2,491.2	826.3	(1,973.5)
Cash and cash equivalents at beginning of year		—	—	—
Exchange (losses)/gains on cash and cash equivalents		6.4	(8.2)	4.4
Add: the beginning balance of cash and cash equivalents		4,972.4	4,154.3	6,123.4
Cash and cash equivalents at end of year		7,470.0	4,972.4	4,154.3

Consolidated statement of changes in equity
For the three years ended 31 December 2016, 31 December 2017 and 31 December 2018

	Share capital	Subordinated bonds	Capital reserve	Statutory surplus reserve	Discretionary surplus reserve	Portion of other comprehensive income of associates	Foreign currency translation reserve	Fair value through other comprehensive income instruments	Retained earnings/ (accumulated losses)	Total	Non-controlling interests'	Total equity
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
At 1 January 2016	6,786.0	—	6,469.4	809.8	2.4	—	—	—	12,510.8	26,578.4	24,811.2	51,389.6
Profit for the year	—	—	—	—	—	—	—	—	3,916.4	3,916.4	3,943.2	7,859.6
Other comprehensive income	—	—	—	—	—	79.5	3.9	—		83.4	(1.0)	82.4
Total comprehensive income for the year . .	—	—	—	—	—	79.5	3.9	—	3,916.4	3,999.8	3,942.2	7,942.0
Acquisition of non-controlling interests	—	—	(1.2)	—	—	—	—	—	—	(1.2)	0.4	(0.8)
Investment by non-controlling interests	—	—	—	—	—	—	—	—	—	0.0	3,030.0	3,030.0
Disposals of shares of subsidiaries	—	—	3.0	—	—	—	—	—	—	3.0	—	3.0
Transfer to surplus reserve	—	—	—	255.0	—	—	—	—	(255.0)	—	—	—
Dividends declared	—	—	—	—	—	—	—	—	(1,899.6)	(1,899.6)	(3,746.4)	(5,646.0)
At 31 December 2016 . .	6,786.0		6,471.2	1,064.8	2.4	79.5	3.9		14,272.6	28,680.4	28,037.4	56,717.8
At 1 January 2017	6,786.0		6,471.2	1,064.8	2.4	79.5	3.9		14,272.6	28,680.4	28,037.4	56,717.8
Profit for the year	—	—	—	—	—	—	—	—	3,232.3	3,232.3	3,327.2	6,559.5
Other comprehensive income	—	—	—	—	—	28.3	(15.4)	0.4	—	13.3	—	13.3
Total comprehensive income for the year . . .	—	—	—	—	—	28.3	(15.4)	0.4	3,232.3	3,245.6	3,327.2	6,572.8
Investment by non-controlling interests	—	—	—	—	—	—	—	—	—	—	1,954.1	1,954.1
Others	—	—	—	—	—	—	—	—	—	—	28.5	28.5
Transfer to surplus reserve	—	—	—	328.4	—	—	—	—	(328.4)	—	—	—
Dividends declared	—	—	—	—	—	—	—	—	(1,370.7)	(1,370.7)	(3,194.9)	(4,565.6)
At 31 December 2017 . .	6,786.0	—	6,471.2	1,393.2	2.4	107.8	(11.5)	0.4	15,805.8	30,555.3	30,152.3	60,707.6

Consolidated statement of changes in equity
For the three years ended 31 December 2016, 31 December 2017 and 31 December 2018 (continued)

	Share capital	Subordinated bonds	Capital reserve	Statutory surplus reserve	Discretionary surplus reserve	Portion of other comprehensive income of associates	Foreign currency translation reserve	Fair value through other comprehensive income instruments	Retained earnings/ (accumulated losses)	Total	Non-controlling interests'	Total equity
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
At 1 January 2018	6,786.0	—	6,471.2	1,393.2	2.4	107.8	(11.5)	0.4	15,805.8	30,555.3	30,152.3	60,707.6
Issue other equity instruments	—	3,999.0	—	—	—	—	—	—	—	3,999.0	—	3,999.0
Profit for the year	—	—	—	—	—	—	—	—	4,329.2	4,329.2	3,986.4	8,315.6
Other comprehensive income	—	—	—	—	—	42.4	19.2	(1.3)		60.3	0.1	60.4
Total comprehensive income for the year	—	—	—	—	—	42.4	19.2	(1.3)	4,329.2	4,389.5	3,986.5	8,376.0
Acquisition of non-controlling interests	—	—	—	—	—	—	—	—	—	—	97.9	97.9
Investment by non-controlling interests	—	—	—	—	—	—	—	—	—	—	1,499.5	1,499.5
Disposals of shares of subsidiaries	—	—	—	—	—	—	—	—	—	—	(77.6)	(77.6)
Transfer to surplus reserve	—	—	—	338.4	—	—	—	—	(338.4)	—	—	—
Dividends declared	—	—	—	—	—	—	—	—	(1,131.2)	(1,131.2)	(3,167.2)	(4,298.4)
Interest to holders of other equity instruments	—	—	—	—	—	—	—	—	(118.5)	(118.5)	—	(118.5)
Other	—	—	(2.4)	—	—	—	—	—	—	(2.4)	—	(2.4)
At 31 December 2018	6,786.0	3,999.0	6,468.8	1,731.6	2.4	150.2	7.7	(0.9)	18,546.9	37,691.7	32,491.4	70,183.1

Notes forming part of the consolidated financial information
For the three years ended 31 December 2016, 31 December 2017 and 31 December 2018

1. General information

SDIC Power Holdings Co Limited ('SDIC Power') was incorporated in the People's Republic of China (the 'PRC'). The registered address of the Company is: No.1108, 11F, No. 147 Building, Xizhimen Nanxiao Street, Xicheng District, Beijing. The Group's principal activity covers investment, construction, operation and management of energy projects with electric power production as primary; development and operation of wind and solar power projects, high and new technology and environmental protection industry development; operation of electric power products as well as information and consultation services.

2. Basis of preparation and going concern

The principal accounting policies adopted in the preparation of the consolidated financial information are set out in section 3. The policies have been consistently applied to all the years presented, unless otherwise stated.

This financial information has been prepared in accordance with International Financial Reporting Standards and International Accounting Standards as issued by the International Accounting Standards Board (IASB) and Interpretations (collectively IFRSs) as endorsed by the European Union.

The consolidated financial information is presented in Chinese Yuan rounded to the nearest million. The consolidated financial information has been prepared on a historical cost basis, except for financial instruments measured at fair value through other comprehensive income and fair value through profit and loss. The Group has adopted the following accounting standards in the preparation of the consolidated financial information:

- IFRS 15—Revenue from Contracts with Customers
- IFRS 9—Financial Instruments

As highlighted in note 52, this financial information represent the first financial information prepared under IFRS.

Also, there are a number of standards, amendments to standards and interpretations which have been issued that are effective in future accounting periods, in which the Group adopted the IFRS 16 *Leases* (effective for periods beginning on or after 1 January 2019) retrospectively in advance from 1 January 2016 because of future comparability. The reclassifications and the adjustments arising from the new leasing rules were recognised in the ending balance sheet on 31 December 2016.

The preparation of financial information in compliance with adopted IFRS requires the use of certain critical accounting estimates. It also requires Group management to exercise judgment in applying the Group's accounting policies. The areas where significant judgments and estimates have been made in preparing the financial information and their effect are disclosed in note 4.

Going concern

At 31 of December 2018, a significant portion of the funding requirements of the group for the capital expenditures was satisfied by short-term borrowings. At 31 of December 2018 the group had a net current liabilities of approximately RMB17,792m (2017: RMB21,774m; 2016: RMB26,186m). The group has significant undrawn credit facilities, subject to certain conditions, amounting to

2. Basis of preparation and going concern (continued)

Going concern (continued)

approximately RMB148,500m, The group could re-finance and/or restructure certain short-term loans and borrowings into long-term borrowings and will also consider alternative sources of financing, where applicable. The directors of the company are of the opinion that the group will be able to meet its liabilities and other financial commitments as and when they fall due within the next 12 months. Therefore the consolidated financial information has been prepared on a going concern basis.

3. Accounting policies

The following significant policies have been applied in the preparation of the financial information.

Basis of consolidation

The consolidated financial information presents the results of the company and its subsidiaries ("the Group") as if they formed a single entity. Where the company has control over an investee, it is classified as a subsidiary. The company controls an investee if all three of the following elements are present: power over the investee, exposure to variable returns from the investee, and the ability of the investor to use its power to affect those variable returns. Control is reassessed whenever facts and circumstances indicate that there may be a change in any of these elements of control.

De-facto control exists in situations where the company has the practical ability to direct the relevant activities of the investee without holding the majority of the voting rights. In determining whether de-facto control exists the company considers all relevant facts and circumstances, including:

- The size of the company's voting rights relative to both the size and dispersion of other parties who hold voting rights
- Substantive potential voting rights held by the company and by other parties
- Other contractual arrangements
- Historic patterns in voting attendance.

Intercompany transactions and balances between group companies are therefore eliminated in full. Details of the subsidiaries can be located in note 18.

The acquisition method of accounting is used to account for the acquisition of subsidiaries by the Group other than those not under common control.

The cost of an acquisition is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange plus the amount of any non-controlling interests in the acquiree plus, if the business combination is achieved in stages, the fair value of the existing equity interest in the acquiree. Contingent consideration is included in cost at its acquisition date fair value and, in the case of contingent consideration classified as a financial liability, remeasured subsequently through profit or loss. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are initially measured at fair value at the acquisition date irrespective of the extent of any non-controlling interest. The excess of cost of

3. Accounting policies (continued)

Basis of consolidation (continued)

acquisition over the fair values of the Group's share of identifiable net assets acquired is recognised as goodwill. Any deficiency of the cost of acquisition below the fair value of identifiable net assets acquired (i.e. discount on acquisition) is recognised directly in the Statement of profit or loss and other comprehensive income. All acquisition expenses have been reported within the Statement of profit or loss and other comprehensive income immediately.

The results of acquired operations are included in the Statement of profit or loss and other comprehensive income from the date on which control is obtained applying consistent accounting policies. They are deconsolidated from the date on which control ceases.

Any changes in the Group's ownership interest in subsidiary that does not lead to a loss of control are accounted for as equity transactions.

Business combination under common control

Purchases of subsidiaries as a result of business combinations under common control are accounted for using the predecessor values method. Under this method the financial information of the combined entity is presented as if the businesses had been combined from the beginning of the earliest period presented or, if later, the date when the combining entities were first brought under common control. The assets and liabilities of the subsidiary transferred under common control are at the predecessor entity's carrying amounts. Any difference between the consideration of the transaction and the carrying amount of the net assets is recorded in equity.

Non-controlling interests

Non-controlling interests represent the equity in subsidiaries not attributable, directly or indirectly, to the shareholders of the parent company.

Non-controlling interests are initially measured at the share of identifiable net assets of the subsidiary or for business combinations completed the Group has the choice, on a transaction by transaction basis, to initially recognise any non-controlling interest in the acquiree which is a present ownership interest and entitles its holders to a proportionate share of the entity's net assets in the event of liquidation at either acquisition date fair value or, at the present ownership instruments' proportionate share in the recognised amounts of the acquiree's identifiable net assets.

Non- controlling interests are presented in the statement of financial position and consolidated statement of changes in equity in equity. Non-controlling interests are included in the consolidated statement of profit and loss and other comprehensive income as an allocation of profit and loss and total comprehensive income for the year between non-controlling shareholders and owners of the Company. Profit and loss and other comprehensive income is attributed to the non-controlling interest even if the non-controlling interest has a deficit balance.

Goodwill

Goodwill represents the excess of the cost of a business combination over the Group's interest in the fair value of identifiable assets, liabilities and contingent liabilities acquired.

3. Accounting policies (continued)

Goodwill (continued)

Goodwill is capitalised as an intangible asset with any impairment in carrying value being charged to the consolidated Statement of profit or loss and other comprehensive income. Where the fair value of identifiable assets, liabilities and contingent liabilities exceed the fair value of consideration paid, the excess is credited in full to the consolidated Statement of profit or loss and other comprehensive income on the acquisition date.

Property, plant and equipment

Items of property, plant and equipment are initially recognised at cost. As well as the purchase price, cost includes directly attributable costs and the estimated present value of any future unavoidable costs of dismantling and removing items. The corresponding liability is recognised within provisions.

Depreciation is provided on all other items of property, plant and equipment so as to write off their carrying value over their expected useful economic lives as detailed below.

Land use rights	—	Over life of agreement
Buildings and structures	—	10 to 50 years
Mechanical equipment	—	5 to 30 years
Transportation facilities	—	5 to 10 years
Office equipment and others	—	3 to 5 years
Highway use right	—	Over life of agreement

The residual values, useful lives and depreciation methods are reviewed and, adjusted if appropriate, at each reporting period end.

Construction in progress and engineering materials are recorded at cost being all directly attributable costs necessary for the asset to be located and to operate as intended by management. Depreciation is not recorded until such time as the asset has commenced operations.

Lease

The Group as lessee

Operating leases

Leases that do not substantially transfer to the Group all the risks and rewards of ownership of assets are accounted for as operating leases. Lease payments (net of any incentives received from the lessor) are recognised as an expense on a straight-line basis over the lease term.

Finance leases

Leases that substantially transfer to the Group all the risks and rewards of ownership of assets are accounted for as finance leases. At the commencement of the lease term, a finance lease is capitalised at the lower of the fair value of the leased asset and the present value of the minimum lease payments, each determined at the inception of the lease.

The corresponding liability to the lessor is included in the consolidated statement of financial position as finance lease payable. Lease payments are apportioned between the finance charge and the

3. Accounting policies (continued)

Lease (continued)

Finance leases (continued)

reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Assets under finance leases are depreciated the same as owned assets.

A sale and leaseback transaction involves the sale of an asset and the leasing back of the same asset. The lease payment and the sale price are usually interdependent because they are negotiated as a package. If a sale and leaseback transaction results in a finance lease, any excess of sales proceeds over the carrying amount shall be deferred and amortised over the lease term.

The Group as lessor

Operating leases

Leases that do not substantially transfer to the lessees all the risks and rewards of ownership of assets are accounted for as operating leases. Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease.

IFRS 16 *Leases*

IFRS 16 provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statement of both lessor and lessee.

In respect of the lessee accounting, the standard introduces a single lessee accounting model, requiring lessees to recognise assets and liabilities for all leases with the lease term of more than 12 months, unless the underlying asset has a low value.

At the commencement date of the lease, the lessee is require to recognise a right use of asset at cost, which consists of the amount of the initial measurement of the lease liability, plus any lease payments made to the lessor at or before the commencement date less any lease incentives received, the initial estimate of restoration costs and any initial direct costs incurred by the lessee. A lease liability is initially recognised at the present value of the lease payments that are not paid at that date.

Subsequently, the right of use asset is measured at cost less any accumulated depreciation and any accumulated impairment losses, and adjusted for any remeasurement of the lease liability. Lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability, reducing the carrying amount to reflect the lease payment made, and remeasuring the carrying amount to reflect any reassessment or lease modifications or to reflect revised in-substance fixed lease payments. Depreciation and impairment expenses, if any, on the right of use asset will be charged to profit or loss following the requirement of IAS 16 Property, Plant and Equipment, while interest accrual on lease liability will be charged to profit and loss.

In respect of the lessor accounting, IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17 *Leases*. Accordingly, a lessor continues to classify its leases as operating leases or finance leases, and to account for those two types of leases differently.

3. Accounting policies (continued)

Lease (continued)

IFRS 16 *Leases (continued)*

On adoption of IFRS 16, the group recognised lease liabilities and right of use assets in relation to leases which had previously been classified as 'operating leases' under the principles of IAS 17 leases. These liabilities were measured at the present value of the remaining lease payments and the discounted rate is based on Industrials corporate All in Yield (Rating A, Tenor 28Y) valued by S&P Capital IQ on 10 October 2018, which is 3.283%.

For leases previously classified as finance leases the entity recognised the carrying amount of lease asset and lease liability immediately before transition as the carrying amount of the right of use asset and the lease liability at the date of initial application. However, the right of use asset for the Group has been recognised in the PPE (in note 14 below) rather than as a separate line on the balance sheet as there is no requirement to present this. The measurement principles of IFRS 16 are only applied after that date.

In applying IFRS 16 for the first time, the Group has used the following practical expedients permitted by the standard:

- The use of a single discount rate to a portfolio of leases with reasonably similar characteristics
- Reliance on previous assessments on whether leases are onerous
- The accounting for operating leases with a remaining lease term of less than 12 months as short-term leases
- The exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application, and
- The use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease.

The Group has also elected not to reassess whether a contract is, or contains a lease at the date of initial application. Instead, for contracts entered into before the transition date the Group relied on its assessment made applying IAS 17 and IFRIC 4 Determining whether an Arrangement contains a lease.

Investment property

The Group's investment property is land and/ or buildings held to earn rentals and/ or capital appreciation. An investment property is measured initially at its cost including all direct cost attributable to the property.

After initial recognition, the investment property is stated at cost less accumulated depreciation and impairment losses. The property is depreciated down to its residual value over the useful economic life of 10 to 50 years.

3. Accounting policies (continued)

Intangible assets

Externally acquired intangible assets are initially recognised at cost and subsequently amortised on a straight-line basis over their useful economic lives.

Intangible assets are recognised on business combinations if they are separable from the acquired entity or give rise to other contractual/legal rights. The amounts ascribed to such intangibles are arrived at by using appropriate valuation techniques (see section related to critical estimates and judgements below).

Amortisation of intangibles is calculated either at rates appropriate to write off the depreciable amount over the estimated useful lives on a straight-line basis.

Software	5 years
Others	Up to 10 years

The residual values, useful lives and amortisation methods are reviewed and, adjusted if appropriate, at each reporting period end.

Under the terms of the various contracts with the Government, where the Group obtains the right to use various assets. Where the Group acts as operator is required to maintain the asset and make necessary improvements. The upgrade services will maintain and enhance the Group's ability to provide services to the users and therefore the expenditure is recognised as an intangible asset which represents the right to charge users for the public service. The upgrade services are accounted for in accordance with IFRS 15. Revenue is recognised based on stage of completion of the services measured by reference to the fair value of consideration receivable. Fair value of consideration represents the cost of the upgrade services with an estimated margin on services.

Impairment of non-financial assets (excluding inventories, investment properties and deferred tax assets)

Impairment tests on goodwill and other intangible assets with indefinite useful economic lives are undertaken annually at the financial year end. Other non-financial assets are subject to impairment tests whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. Where the carrying value of an asset exceeds its recoverable amount (i.e. the higher of value in use and fair value less costs to sell), the asset is written down accordingly.

Where it is not possible to estimate the recoverable amount of an individual asset, the impairment test is carried out on the smallest group of assets to which it belongs for which there are separately identifiable cash flows; its cash generating units ('CGUs'). Goodwill is allocated on initial recognition to each of the Group's CGUs that are expected to benefit from a business combination that gives rise to the goodwill.

Impairment charges are included in profit or loss, except to the extent they reverse gains previously recognised in other comprehensive income. An impairment loss recognised for goodwill is not reversed.

3. Accounting policies (continued)

Associates

Where the Group has the power to participate in (but not control) the financial and operating policy decisions of another entity, it is classified as an associate. Associates are initially recognised in the consolidated statement of financial position at cost. Subsequently associates are accounted for using the equity method, where the Group's share of post-acquisition profits and losses and other comprehensive income is recognised in the consolidated statement of profit and loss and other comprehensive income (except for losses in excess of the Group's investment in the associate unless there is an obligation to make good those losses).

Profits and losses arising on transactions between the Group and its associates are recognised only to the extent of unrelated investors' interests in the associate. The investor's share in the associate's profits and losses resulting from these transactions is eliminated against the carrying value of the associate.

Any premium paid for an associate above the fair value of the Group's share of the identifiable assets, liabilities and contingent liabilities acquired is capitalised and included in the carrying amount of the associate. Where there is objective evidence that the investment in an associate has been impaired the carrying amount of the investment is tested for impairment in the same way as other non-financial assets.

Joint arrangements

The group is a party to a joint arrangement when there is a contractual arrangement that confers joint control over the relevant activities of the arrangement to the group and at least one other party. Joint control is assessed under the same principles as control over subsidiaries.

The group classifies its interests in joint arrangements as either:

- *Joint ventures*: where the group has rights to only the *net assets* of the joint arrangement
- *Joint operations*: where the group has both the rights to assets and obligations for the liabilities of the joint arrangement.

In assessing the classification of interests in joint arrangements, the Group considers:

- The structure of the joint arrangement
- The legal form of joint arrangements structured through a separate vehicle
- The contractual terms of the joint arrangement agreement
- Any other facts and circumstances (including any other contractual arrangements).

The Group accounts for its interests in joint ventures in the same manner as investments in Associates (i.e. using the equity method—refer above).

Any premium paid for an investment in a joint venture above the fair value of the Group's share of the identifiable assets, liabilities and contingent liabilities acquired is capitalised and included in the carrying amount of the investment in joint venture. Where there is objective evidence that the investment in a joint venture has been impaired the carrying amount of the investment is tested for impairment in the same way as other non-financial assets.

3. Accounting policies (continued)

Joint arrangements (continued)

The Group accounts for its interests joint operations by recognising its share of assets, liabilities, revenues and expenses in accordance with its contractually conferred rights and obligations. In accordance with IFRS 11 *Joint Arrangements*, the Group is required to apply all of the principles of IFRS 3 *Business Combinations* when it acquires an interest in a joint operation that constitutes a business as defined by IFRS 3.

Inventories

Inventories are initially recognised at cost, and subsequently at the lower of cost and net realisable value. Cost comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

Weighted average cost is used to determine the cost of ordinarily interchangeable items.

Foreign currency

Transactions entered into by Group entities in a currency other than the currency of the primary economic environment in which they operate (their "functional currency") are recorded at the rates ruling when the transactions occur. Foreign currency monetary assets and liabilities are translated at the rates ruling at the reporting date. Exchange differences arising on the retranslation of unsettled monetary assets and liabilities are recognised immediately in profit or loss, except for foreign currency borrowings qualifying as a hedge of a net investment in a foreign operation, in which case exchange differences are recognised in other comprehensive income and accumulated in the foreign exchange reserve along with the exchange differences arising on the retranslation of the foreign operation.

Exchange gains and losses arising on the retranslation of monetary available for sale financial assets are treated as a separate component of the change in fair value and recognised in profit or loss. Exchange gains and losses on non-monetary available for sale financial assets form part of the overall gain or loss recognised in respect of that financial instrument.

On consolidation, the results of overseas operations are translated into the presentation currency of RMB at rates approximating to those ruling when the transactions took place. All assets and liabilities of overseas operations, including goodwill arising on the acquisition of those operations, are translated at the rate ruling at the reporting date. Exchange differences arising on translating the opening net assets at opening rate and the results of overseas operations at actual rate are recognised in other comprehensive income and accumulated in the foreign exchange reserve.

Exchange differences recognised profit or loss in Group entities' separate financial statements on the translation of long-term monetary items forming part of the Group's net investment in the overseas operation concerned are reclassified to other comprehensive income and accumulated in the foreign exchange reserve on consolidation.

On disposal of a foreign operation, the cumulative exchange differences recognised in the foreign exchange reserve relating to that operation up to the date of disposal are transferred to the consolidated Statement of profit or loss and other comprehensive income as part of the profit or loss on disposal.

3. Accounting policies (continued)

Financial assets

The Group classifies its financial assets into one of the categories discussed below, depending on the purpose for which the asset was acquired. The Group's accounting policy for each category is as follows:

Amortised cost

These assets arise principally from the provision of goods and services to customers (eg trade receivables), but also incorporate other types of financial assets where the objective is to hold these assets in order to collect contractual cash flows and the contractual cash flows are solely payments of principal and interest. They are initially recognised at fair value plus transaction costs that are directly attributable to their acquisition or issue and are subsequently carried at amortised cost using the effective interest rate method, less provision for impairment.

Impairment provisions for current and non-current trade receivables are recognised based on the simplified approach within IFRS 9 using a provision matrix in the determination of the lifetime expected credit losses. During this process the probability of the non-payment of the trade receivables is assessed. This probability is then multiplied by the amount of the expected loss arising from default to determine the lifetime expected credit loss for the trade receivables. For trade receivables, which are reported net, such provisions are recorded in a separate provision account with the loss being recognised within cost of sales in the consolidated Statement of profit or loss and other comprehensive income. On confirmation that the trade receivable will not be collectable, the gross carrying value of the asset is written off against the associated provision.

Impairment provisions for receivables from related parties and loans to related parties are recognised based on a forward-looking expected credit loss model. The methodology used to determine the amount of the provision is based on whether there has been a significant increase in credit risk since initial recognition of the financial asset. For those where the credit risk has not increased significantly since initial recognition of the financial asset, twelve month expected credit losses along with gross interest income are recognised. For those for which credit risk has increased significantly, lifetime expected credit losses along with the gross interest income are recognised. For those that are determined to be credit impaired, lifetime expected credit losses along with interest income on a net basis are recognised.

From time to time, the Group elects to renegotiate the terms of trade receivables due from customers with which it has previously had a good trading history. Such renegotiations will lead to changes in the timing of payments rather than changes to the amounts owed and, in consequence, the new expected cash flows are discounted at the original effective interest rate and any resulting difference to the carrying value is recognised in the consolidated Statement of profit or loss and other comprehensive income (operating profit).

The Group's financial assets measured at amortised cost comprise trade and other receivables and cash and cash equivalents in the consolidated statement of financial position.

Cash and cash equivalents includes cash in hand, deposits held at call with banks, other short term highly liquid investments with original maturities of three months or less, and—for the purpose of

3. Accounting policies (continued)

Financial assets (continued)

Amortised cost (continued)

the statement of cash flows—bank overdrafts. Bank overdrafts are shown within loans and borrowings in current liabilities on the consolidated statement of financial position.

Fair value through other comprehensive income

The Group has a number of investments in listed and unlisted entities which are not accounted for as subsidiaries, associates or jointly controlled entities. For those investments, the Group has made an irrevocable election to classify the investments at fair value through other comprehensive income rather than through profit or loss as the Group considers this measurement to be the most representative of the business model for these assets. They are carried at fair value with changes in fair value recognised in other comprehensive income and accumulated in the fair value through other comprehensive income reserve. Upon disposal any balance within fair value through other comprehensive income reserve is reclassified directly to retained earnings and is not reclassified to profit or loss.

Dividends are recognised in profit or loss, unless the dividend clearly represents a recovery of part of the cost of the investment, in which case the full or partial amount of the dividend is recorded against the associated investments carrying amount.

The Group has debt securities whose objective is achieved by both holding these securities in order to collect contractual cash flows and having the intention to sell the debt securities before maturity. The contractual terms of the debt securities give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding. Upon disposal any balance within fair value through other comprehensive income reserve is reclassified directly to profit or loss.

Purchases and sales of financial assets measured at fair value through other comprehensive income are recognised on settlement date with any change in fair value between trade date and settlement date being recognised in the fair value through other comprehensive income reserve.

Fair value through profit or loss

Financial assets that do not meet the criteria for being measured at amortised cost or FVTOCI or designated as FVTOCI are measured at FVTPL.

Financial assets at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognised in profit or loss. The net gain or gain recognised in profit or loss included any dividend or interest earned on the financial asset and is included in the “Fair value movements on financial instrument measured at fair value through profit and loss” line item.

3. Accounting policies (continued)

Financial liabilities

The Group only holds other financial liabilities

Other than financial liabilities in a qualifying hedging relationship (see below), the Group's accounting policy for each category is as follows:

Other financial liabilities

Other financial liabilities include the following items:

Borrowings are initially recognised at fair value net of any transaction costs directly attributable to the issue of the instrument. Such interest-bearing liabilities are subsequently measured at amortised cost using the effective interest rate method, which ensures that any interest expense over the period to repayment is at a constant rate on the balance of the liability carried in the consolidated statement of financial position. For the purposes of each financial liability, interest expense includes initial transaction costs and any premium payable on redemption, as well as any interest or coupon payable while the liability is outstanding.

Trade payables and other short-term monetary liabilities, which are initially recognised at fair value and subsequently carried at amortised cost using the effective interest method.

Financial guarantee contracts

Financial guarantee contracts are those contracts that require the issuer to make specified payments to reimburse the holders for losses they incur because specified debtors fail to make payments when due in accordance with the original or modified terms of debt instruments. Where the Group enters into financial guarantee contracts to guarantee the indebtedness of other companies within the group, provisions are made for expected credit losses. Where a provision is recorded this is included in the impairment line in the consolidated statement of profit or loss and other comprehensive loss.

Share capital

Financial instruments issued by the Group are classified as equity only to the extent that they do not meet the definition of a financial liability or financial asset.

The Group's ordinary shares are classified as equity instruments.

Revenue

Under IFRS 15, revenue is recognised when the customer obtains control of the promised good or services in the contract. This may be at a single point in time or over time. IFRS 15 identifies the following three situations in which control of the promised good or service is regarded as being transferred over time:

- When the customer simultaneously receives and consumes the benefits provided by the entity's performance, as the entity performs;
- When the entity's performance creates or enhances an asset (for example work in progress) that the customer controls as the asset is created or enhanced;

3. Accounting policies (continued)

Revenue (continued)

- When the entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date.

If the contract terms and the entity's activities do not fall into any of these 3 situations, then under IFRS 15 the entity recognises revenue for the sale of that good or service at a single point in time, being when control has passed. Transfer of risks and rewards of ownership is only one of the indicators that is considered in determining when the transfer of control occurs.

The vast majority of the Group's revenue comprised of contracts with customers from rate-regulated sales of electricity and heat, and it has determined that no enforceable rights and obligations exist at inception of the contract and arise only once the cooling off period is complete and the Group is the legal supplier of energy to the customer. The performance obligation is the supply of energy over the contractual term; the units of supply represent a series of distinct goods that are substantially the same with the same pattern of transfer to the customer. The performance obligation is considered to be satisfied as the customer consumes based on the units of energy delivered. This is the point at which revenue is recognised.

Revenue from sales of electricity and heat represents the amount of tariffs build for electricity and heat generated and transmitted to the respective power companies and heat supply companies. The amounts are billed monthly on basis of agreed output at pre-agreed prices.

Borrowing costs

Borrowing costs are capitalised, net of interest received on cash drawn down yet to be expended when they are directly attributable to the acquisition, contribution or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale.

Defined contribution schemes

Contributions to defined contribution pension schemes are charged to the consolidated Statement of profit or loss and other comprehensive income in the year to which they relate.

Other long-term service benefits

Other employee benefits that are expected to be settled wholly within 12 months after the end of the reporting period are presented as current liabilities.

Other employee benefits that are not expected to be settled wholly within 12 months after the end of the reporting period are presented as non-current liabilities and calculated using the projected unit credit method and then discounted using yields available on high quality corporate bonds that have maturity dates approximating to the expected remaining period to settlement and are denominated in the same currency as the post-employment benefit obligations.

3. Accounting policies (continued)

Dividends

Dividends are recognised when they become legally payable. In the case of interim dividends to equity shareholders, this is when declared by the directors. In the case of final dividends, this is when approved by the shareholders at the AGM

Deferred taxation

Deferred tax assets and liabilities are recognised where the carrying amount of an asset or liability in the consolidated statement of financial position differs from its tax base, except for differences arising on:

- The initial recognition of goodwill
- The initial recognition of an asset or liability in a transaction which is not a business combination and at the time of the transaction affects neither accounting or taxable profit, and
- Investments in subsidiaries and joint arrangements where the Group is able to control the timing of the reversal of the difference and it is probable that the difference will not reverse in the foreseeable future.

Recognition of deferred tax assets is restricted to those instances where it is probable that taxable profit will be available against which the difference can be utilised.

The amount of the asset or liability is determined using tax rates that have been enacted or substantively enacted by the reporting date and are expected to apply when the deferred tax liabilities/(assets) are settled/(recovered).

Deferred tax assets and liabilities are offset when the Group has a legally enforceable right to offset current tax assets and liabilities and the deferred tax assets and liabilities relate to taxes levied by the same tax authority on either:

- The same taxable group company, or
- Different group entities which intend either to settle current tax assets and liabilities 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 assets or liabilities are expected to be settled or recovered.

Government grants

Government grants received on capital expenditure are generally deducted in arriving at the carrying amount of the asset purchased. Grants for revenue expenditure are netted against the cost incurred by the Group. Where retention of a government grant is dependent on the Group satisfying certain criteria, it is initially recognised as deferred income. When the criteria for retention have been satisfied, the deferred income balance is released to the consolidated Statement of profit or loss and other comprehensive income or netted against the asset purchased.

3. Accounting policies (continued)

Provisions and contingent liabilities

The group has recognised provisions for liabilities of uncertain timing or amount including those for onerous leases, warranty claims, leasehold dilapidations and legal disputes. The provision is measured at the best estimate of the expenditure required to settle the obligation at the reporting date, discounted at a pre-tax rate reflecting current market assessments of the time value of money and risks specific to the liability. In the case of leasehold dilapidations, the provision takes into account the potential that the properties in question may be sublet for some or all of the remaining lease term.

Where it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow is remote. Possible obligations, whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events are also disclosed as contingent liabilities unless the probability of outflow is remote.

Cash and cash equivalents

Cash and cash equivalents comprise cash at bank and short-term deposits with an original maturity of three months or less. Bank overdrafts that are repayable on demand and form an integral part of cash management are included as components of cash and cash equivalents for the purposes of the cash flow statement.

Operating segments

An operating segment is a component of the Group that is regularly reviewed by the Chief Operating Decision Maker (CODM) for the purposes of allocating resources and assessing financial performance. The CODM is considered to be the Board of Directors.

4. Critical accounting estimates and judgements

The Group makes certain estimates and assumptions concerning the future. Estimates and judgements are continually evaluated based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

Judgements and estimates

Fair value of assets and liabilities acquired on business combination

In the prior period, the Group acquired several subsidiaries as detailed in note 48. The accounting for business combinations requires the fair valuation of assets and liabilities within the acquiree at the acquisition date and the fair valuation of consideration payable including any contingent consideration. The fair valuation exercise will involve making a number of estimates and the actual outcome may vary from the projected outcome.

The acquisition occurred in the prior year and acquisition values are considered to have not suffered a material change and therefore will only be assessed through consideration of impairment.

4. Critical accounting estimates and judgements (continued)

Judgements and estimates (continued)

Fair value of assets and liabilities acquired on business combination (continued)

The contingent consideration payable is fair valued at each period end based on the expectation of the amount being payable based on the contractual terms and likelihood of payment. Should circumstances the value of the liability could be amended in the next accounting period.

Impairment of goodwill and non-current assets

An annual impairment test is required for goodwill and for other non-current assets where there is an indication of impairment. Any impairment test is performed at the level of the cash generating units. Judgement is required in the assessment of whether an indication of impairment exists and also in identifying the level of the cash generating unit.

In making this assessment of whether an indication of impairment exists, the Directors consider the performance of the cash generating unit against expectation.

Any impairment review involves making a number of estimates on calculating the value in use. Details of the assumptions used are included in note 17.

Expected credit losses on guarantees provided

The Group is required to provide for expected credit losses for guarantees provided. Details of the guarantees provided are included in note 51. In deciding on an appropriate level of provision the Group considers the financial position of the guaranteed party and the likelihood of them defaulting.

5. Revenue from contracts with customers

Revenue is nearly entirely comprised of the power sales of the respective national grids in the company of operations, and the price is determined by national policies. Revenue is recognised at the point in time when energy service is provided and is invoiced on a monthly basis with limited accruing or deferral of revenue.

A breakdown of the revenue by type and geography is provided below.

	2018	2017	2016
	RMB (m)	RMB (m)	RMB (m)
Primary Geographic Markets			
China	40,976.8	31,642.3	29,269.7
Other	34.6	0.8	1.1
	41,011.4	31,643.1	29,270.8

	2018	2017	2016
	RMB (m)	RMB (m)	RMB (m)
Revenue type			
Coal-fired power	19,523.2	12,666.0	10,485.6
Hydropower	19,660.9	17,743.1	17,925.6
Wind and solar power	1,180.8	749.2	501.8
Others	646.5	484.8	357.8
	41,011.4	31,643.1	29,270.8

6. Segment information

The Group's reportable segments are strategic business units that offer different products and services. They are managed separately because each business requires different technology and marketing strategies.

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision maker has been identified as the management team including the Chief Executive Officer, the Finance Director and other senior executives.

Measurement of operating segment profit or loss, assets and liabilities

The Group evaluates segmental performance on the basis of profit or loss from operations calculated in accordance with PRC GAAP.

Inter-segment sales are priced along the same lines as sales to external customers. This policy was applied consistently throughout the current and prior period.

Senior Management considers the business from a product perspective. Senior Management primarily assesses the performance of coal-fired power generation, hydropower generation, and wind and solar power generation and others separately. Other operating activities primarily include sales of coal ash and special investment vehicles, etc., which are defined as "others".

Senior Management assesses the performance of the operating segments based on a measure of profit before tax as indicated below.

Sales between operating segments are contracted close to market price and have been eliminated at consolidation level.

6. Segment information (continued)

Measurement of operating segment profit or loss, assets and liabilities (continued)

Information about reportable segment profit or loss from continuing operations:

	Coal-fired power	Hydropower	Wind and solar power	Others	Elimination of intersegment	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Year ended 31 December 2018						
Revenue from external customers	19,523.2	19,660.9	1,180.8	646.5	—	41,011.4
Cost of sales	17,215.9	5,956.9	604.0	663.4	—	24,440.2
Segment result—profit/(loss) before tax	465.7	9,499.7	102.2	3,476.3	(3,876.0)	9,667.9
Depreciation and amortization	2,946.7	3,747.3	535.5	12.2	(45.5)	7,196.2
Impairment losses on assets	462.0	2.8	(24.9)	10.1	(52.7)	397.3
Finance expense	1,107.3	3,173.3	441.5	422.1	(73.1)	5,071.1
Year ended 31 December 2017						
Revenue from external customers	12,666.0	17,743.1	749.2	484.8	—	31,643.1
Cost of sales	11,904.0	5,966.1	413.2	519.5	—	18,802.8
Segment result—profit/(loss) before tax	(791.5)	8,485.0	10.5	3,355.9	(3,545.6)	7,514.3
Depreciation and amortization	2,533.9	3,698.1	438.0	11.2	(58.8)	6,622.4
Impairment losses on assets	105.0	0.1	48.6	2.4	(37.1)	119.0
Finance expense	803.8	3,482.0	232.0	397.4	(37.4)	4,877.8
Year ended 31 December 2016						
Revenue from external customers	10,485.6	17,925.6	501.8	357.8	—	29,270.8
Cost of sales	8,648.1	5,709.0	333.0	410.5	—	15,100.6
Segment result—profit/(loss) before tax	476.6	8,853.4	(121.0)	2,768.9	(3,060.8)	8,917.1
Depreciation and amortization	2,241.2	3,580.5	291.6	9.2	(26.0)	6,096.5
Impairment losses on assets	36.4	5.0	2.7	6.0	(0.6)	49.5
Finance expense	789.4	3,756.9	161.2	375.5	(40.8)	5,042.2
At 31 December 2018						
Segment assets	44,397.3	150,187.2	12,583.6	51,146.3	(37,477.9)	220,836.5
Segment liabilities	30,597.8	95,352.9	11,678.4	14,404.9	(1,380.6)	150,653.4
At 31 December 2017						
Segment assets	45,640.6	146,041.5	6,273.2	42,551.8	(32,219.1)	208,288.0
Segment liabilities	32,057.4	97,493.9	6,875.7	12,090.0	(936.6)	147,580.4
At 31 December 2016						
Segment assets	45,465.1	141,659.3	5,856.3	40,963.5	(30,653.2)	203,291.0
Segment liabilities	30,659.5	97,975.7	6,470.9	12,476.2	(1,009.1)	146,573.2

7. Other income and expense

Other operating income comprises the below amounts.

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)
Income from disposal of fixed asset	4.8	3.3	—
Government grants	188.2	942.4	1,009.5
Loss of disposal of fixed asset	(17.0)	(92.7)	(37.5)
Donation	(15.8)	(8.3)	(36.1)
Free of charge transfer	(61.2)	—	—
Others	72.8	33.8	10.3
	171.8	878.5	946.2

Since this is not considered to be part of the main revenue generating activities, the Group presents this income separately from revenue.

8. Finance income and cost

Recognised in profit or loss	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)
Finance income			
Interest received on bank deposits	86.0	51.1	56.8
Finance expense			
Interest expense on short term loans	252.5	268.2	378.1
Interest expense on long term loans	4,559.8	4,398.9	4,289.2
Interest expense on short term bonds	47.4	75.9	134.3
Interest expense on long term bonds	144.3	144	112.2
Finance lease	22.1	16.2	86.3
Net foreign exchange (gain)/loss	72.3	(30.4)	33.5
Others	58.7	56.1	65.4
Total finance expense	5,157.1	4,928.9	5,099.0

9. Employee benefit expenses

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)
Employee benefit expenses (including directors) comprise:			
Wages and salaries	1,958.8	1,473.7	1,485.1
Benefits in kind	142.7	130.9	118.2
Social security contributions and similar taxes	158.2	156.0	144.3
Housing fund	157.8	154.2	134.4
Others	107.6	103.4	111.0
Post-employment benefits	287.0	256.8	239.2
	2,812.1	2,275.0	2,232.2

9. Employee benefit expenses (continued)

Key management personnel remuneration

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, either directly or indirectly. This designation typically includes the directors of the company, and the senior executives of the Group.

	2018	2017	2016
	RMB ('000)	RMB ('000)	RMB ('000)
Remuneration	7,940.1	7,098.0	6,856.9

10. Profit before tax

	2018	2017	2016
	RMB (m)	RMB (m)	RMB (m)
Loss/(gain) on financial guarantee	(1.1)	(17.1)	516.2
Impairment loss/(gain) of account and other receivable	(4.6)	59.7	34.5
Impairment of property, plant and equipment	272.7	59.4	9.1
Impairment of Intangibles	122.9	—	—
Impairment of inventory	6.1	—	5.9
Auditors remuneration	5.1	5.2	5.0
Foreign exchange (gains)/ losses	72.3	(30.4)	33.5
Amortization	287.3	274.1	260.7
Depreciation	6,908.9	6,348.3	5,837.6
Administrative cost	(1,206.4)	(999.1)	(935.5)
Taxes and surcharges	(961.7)	(563.6)	(457.6)

On December 03 2016, the Ministry of Finance issued the "Regulations on the Processing of Value-Added Taxes" (Accounting [2016] No.22), which stipulates that property tax, land use tax, vehicle and vessel usage tax and stamp duty arising from company operating activities need to be reclassified from the "administrative cost" to the "taxes and surcharges" since May 1 2016. Taxes incurred before May 1 2016 and the comparison data will not be adjusted.

11. Tax expense

Income tax expense	2018	2017	2016
	RMB (m)	RMB (m)	RMB (m)
Income tax relating to continuing operations has been recognised in profit or loss as following:			
Current tax—PRC Enterprise Income Tax			
Provision for the year	1,397.0	974.1	1,120.1
Deferred tax	(44.7)	(19.3)	(62.6)
	1,352.3	954.8	1,057.5

11. Tax expense (continued)

The reconciliation between the income tax expense and the product profit before tax from continuing operations multiplied by the PRC Enterprise Income Tax rate is as follows:

	2018	2017	2016
	RMB (m)	RMB (m)	RMB (m)
Profit before tax from continuing operations	9,667.9	7,514.3	8,917.1
Tax at the PRC Enterprise Income Tax rate of 25%	2,417.0	1,878.6	2,229.3
Different tax rate applicable to subsidiary companies	(992.8)	(991.8)	(552.8)
Adjustments to prior year provisions	22.1	90.4	20.5
Non-taxable income	(108.9)	(43.9)	(737.0)
Non-deductible expenses	1.1	7.8	26.3
Utilisation of tax losses not previously recognised	(2.2)	(6.2)	(9.4)
Deferred tax assets not recognised	1.7	12.6	91.7
Others	14.3	7.3	(11.1)
Income tax expense relating to continuing operations	1,352.3	954.8	1,057.5

12. Earnings per share

	Continuing operations 2018	Continuing operations 2017	Continuing operations 2016
	RMB (m)	RMB (m)	RMB (m)
Profit for the year attributable to shareholders of the parent company.	4,329.2	3,232.3	3,916.4
Inter of perpetual bond	(118.5)	—	—
	4,210.7	3,232.3	3,916.4
Weighted average number of shares used in basic EPS	6,786.0	6,786.0	6,786.0
Earnings per share			
Basic and diluted:			
From continuing and discontinued operations	0.6205	0.4763	0.5771
From continuing operations	0.6205	0.4763	0.5771

There are no outstanding share options or warrants being exercised on or before the Record Date, which would have a dilutive impact on earnings per share.

13. Dividends

	2018	2017	2016
	RMB (m)	RMB (m)	RMB (m)
Final dividend of RMB0.2250 cents (2017: RMB0.2020 cents, 2016: RMB0.2780 cents) per ordinary share proposed and paid during the year relating to the previous year's results	1,131.2	1,370.8	1,899.6

The directors are proposing a final dividend of RMB0.2250 cents (2017: RMB0.2020 cents, 2016:RMB0.2780 cents) per share totalling RMB1,526.9m (2017:RMB1,131.2m, 2016:RMB1,370.8m). This dividend has not been accrued in the consolidated statement of financial position.

14. Property, plant and equipment

	Land use rights	Buildings and structures	Mechanical equipment	Transportation facilities	Office equipment and others	Construction in progress	Project goods and material	Highway use right	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Cost									
At 1 January 2016	1,727.3	114,847.4	54,324.7	449.3	372.1	38,308.4	620.1	1,667.7	212,317.0
Additions:									
Buying	1.9	24.8	78.9	23.1	69.1	19,402.2	2,087.6	—	21,687.6
Transfer from construction in progress	10.7	1,989.4	5,787.2	14.4	28.3	(7,819.4)	—	—	10.6
Transfer from project goods and material	—	—	—	—	—	—	(2,203.9)	—	(2,203.9)
Increased by business merger	—	5.3	124.1	0.4	0.9	—	—	—	130.7
Others	—	144.8	(193.9)	0.3	(1.3)	—	—	—	(50.1)
Disposals	(5.7)	(2.8)	(335.5)	(27.6)	(41.4)	—	—	—	(413.0)
At 31 December 2016 and 1 January 2017	**1,734.2**	**117,008.9**	**59,785.5**	**459.9**	**427.7**	**49,891.2**	**503.8**	**1,667.7**	**231,478.9**
Additions:									
Buying	54.9	1.3	33.2	23.2	74.8	9,942.7	285.0	—	10,415.1
Transfer from construction in progress	—	7,049.2	6,735.7	6.9	18.4	(13,810.2)	—	—	—
Transfer from project goods and material	—	—	—	—	—	—	(784.5)	—	(784.5)
Increased by business merger	—	—	238.3	0.6	—	—	—	—	238.9
Others	—	(26.4)	(263.2)	—	(9.7)	—	—	—	(299.3)
Disposals	(2.6)	(40.0)	(424.0)	(14.7)	(21.1)	—	—	—	(502.4)
At 31 December 2017 and 1 January 2018	**1,786.5**	**123,993.0**	**66,105.5**	**475.9**	**490.1**	**46,023.7**	**4.3**	**1,667.7**	**240,546.7**
Additions:									
Buying	9.1	1.5	109.2	12.0	32.5	8,963.2	56.4	—	9,183.9
Transfer from construction in progress	—	5,967.2	4,717.9	2.3	26.1	(10,716.7)	—	—	(3.2)
Transfer from project goods and material	—	—	—	—	—	—	(22.2)	—	(22.2)
Increased by business merger	3.1	2.1	2,730.2	0.1	0.4	—	—	—	2,735.9
Others	128.3	(42.1)	(105.8)	(0.1)	(0.8)	—	—	—	(20.5)
Disposals	(19.4)	(62.0)	(89.4)	(16.8)	(25.2)	—	—	—	(212.8)
At 31 December 2018	**1,907.6**	**129,859.7**	**73,467.6**	**473.4**	**523.1**	**44,270.2**	**38.5**	**1,667.7**	252,207.8

14. Property, plant and equipment (continued)

	Land use rights	Buildings and structures	Mechanical equipment	Transportation facilities	Office equipment and others	Construction in progress	Project goods and material	Highway use right	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Accumulated Depreciation and Impairment Loss At 1 January 2016	**249.0**	**21,458.0**	**23,384.8**	**297.8**	**255.7**	**—**	**—**	**402.7**	**46,048.0**
Additions:									
Depreciation for the year	36.7	2,792.4	2,875.3	26.1	61.9	—	—	45.2	5,837.6
Others	—	29.3	—	—	—	—	—	—	29.3
Disposals	(0.1)	(200.4)	(190.0)	(24.9)	(19.3)	—	—	—	(434.7)
Impairment:									
Increases	—	—	9.1	—	—	—	—	—	9.1
Other increase	—	—	19.1	—	—	—	—	—	19.1
Decreases	—	—	—	—	—	—	—	—	—
At 31 December 2016 and 1 January 2017	285.6	24,079.3	26,098.3	299.0	298.3	—	—	447.9	**51,508.4**
Additions:									
Depreciation for the year	36.2	2,999.8	3,173.8	32.7	60.6	—	—	45.2	6,348.3
Others	—	4.2	15.0	—	0.3	—	—	—	19.5
Disposals	(0.7)	(15.2)	(484.8)	(10.3)	(34.8)	—	—	—	(545.8)
Impairment:									
Increases	—	—	59.4	—	—	—	—	—	59.4
Decreases	—	—	(33.9)	—	—	—	—	—	(33.9)
At 31 December 2017 and 1 January 2018	**321.1**	**27,068.1**	**28,827.8**	**321.4**	**324.4**			**493.1**	**57,355.9**
Additions:									
Depreciation for the year	33.9	3,111.8	3,616.0	25.1	76.9	—	—	45.2	6,908.9
Others	—	6.2	1.3	—	—	—	—	—	7.5
Disposals	(3.6)	(39.9)	(59.5)	(16.0)	(23.0)	—	—	—	(142.0)
Impairment:									
Increases	0.2	—	272.5	—	—	—	—	—	272.7
Decreases	—	—	(13.9)	—	—	—	—	—	(13.9)
At 31 December 2018	**351.6**	**30,146.2**	**32,644.2**	**330.5**	**378.3**	**—**	**—**	**538.3**	**64,389.1**

14. Property, plant and equipment (continued)

	Land use rights	Buildings and structures	Mechanical equipment	Transportation facilities	Office equipment and others	Construction in progress	Project goods and material	Highway use right	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Carrying Amount									
At 1 January 2016	1,478.3	93,389.4	30,939.9	151.5	116.4	38,308.4	620.1	1,265.0	166,269.0
At 31 December 2016	1,448.6	92,929.6	33,687.2	160.9	129.4	49,891.2	503.8	1,219.8	179,970.5
At 31 December 2017	1,465.4	96,924.9	37,277.7	154.5	165.7	46,023.7	4.3	1,174.6	183,190.8
At 31 December 2018	1,556.0	99,713.5	40,823.4	142.9	144.8	44,270.2	38.5	1,129.4	187,818.7

Others mainly includes the original value adjustment, transfer from investment property, transfer to investment property, construction in progress, and others.

The net carrying amount of property, plant and equipment includes the following amounts held under finance lease: machine equipment RMB1,523.9m (2017: RMB1,237.6m, 2016: RMB2,597.9m).

Interest capitalised for the year amounted to RMB1,098.3m (2017: RMB1,002.3m, 2016: RMB1,249.5m). The capitalisation rate applied in the year was 3.72-4.51% (2017: 3.92-4.90%, 2016: 3.92-4.90%).

15. Investment property

	RMB (m)
Cost	
At 1 January 2016	413.1
Transfer In	2.3
Transfer Out	(158.3)
At 31 December 2016 and 1 January 2017	257.1
Transfer In	7.7
Transfer Out	(6.0)
At 31 December 2017 and 1 January 2018	258.8
Transfer In	4.2
Transfer Out	(6.9)
At 31 December 2018	256.1
Accumulated Depreciation	
At 1 January 2016	159.9
Charge for the Year	11.3
Transfer Out	(30.1)
At 31 December 2016 and 1 January 2017	141.1
Charge for the Year	12.6
Transfer Out	(5.0)
At 31 December 2017 and 1 January 2018	148.7
Charge for the Year	8.5
Transfer Out	(4.2)
At 31 December 2018	153.0
Carrying Amount	
At 1 January 2016	253.2
At 31 December 2016	116.0
At 31 December 2017	110.1
At 31 December 2018	103.1

There are no significant differences between the carrying value and the fair value of the investment properties as all assets are located near the generating stations which are located in remote towns and countries and therefore cost approximates the fair value.

16. Intangible assets

	Software	House Use Right	Sea Area Use Right	Water Intake Right	BOT Concession Right	Carbon Emission Right	Renewables Obligation Certificate	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Cost								
At 1 January 2016	165.8	6.7	211.0	28.8	4,747.7	—	—	5,160.0
Additions	44.4	—	—	—	100.4	2.1	—	146.9
Increased by business merger	5.1	—	—	—	—	—	—	5.1
Disposals	(1.6)	—	—	—	—	—	—	(1.6)
Disposal of Subsidiaries	(0.3)	—	—	—	—	—	—	(0.3)
At 31 December 2016 and 1 January 2017	213.4	6.7	211.0	28.8	4,848.1	2.1	—	5,310.1
Additions	46.3	—	—	—	12.9	0.5	—	59.7
Disposals	(1.3)	—	—	—	(23.2)	(2.2)	—	(26.7)
Disposal of Subsidiary	(0.1)	—	—	—	—	—	—	(0.1)
At 31 December 2017 and 1 January 2018	258.3	6.7	211.0	28.8	4,837.8	0.4	—	5,343.0
Additions	54.9	—	—	—	17.9	0.6	—	73.4
Increased by business merger	—	—	—	—	—	—	312.3	312.3
Disposals	(0.1)	—	—	—	—	—	—	(0.1)
Disposal of Subsidiary	(0.1)	—	—	—	—	—	—	(0.1)
At 31 December 2018	313.0	6.7	211.0	28.8	4,855.7	1.0	312.3	5,728.5
Accumulated Amortisation and Impairment Losses								
At 1 January 2016	74.1	2.7	29.7	12.5	2,672.1	—	—	2,791.1
Amortisation for the Year	26.7	0.2	5.0	1.4	227.4	—	—	260.7
Disposals	(0.3)	—	—	—	—	—	—	(0.3)
At 31 December 2016 and 1 January 2017	100.5	2.9	34.7	13.9	2,899.5	—	—	3,051.5
Amortisation for the Year	31.7	0.1	5.0	1.5	235.8	—	—	274.1
Disposals	(0.2)	—	—	—	(14.9)	—	—	(15.1)

16. Intangible assets (continued)

	Software	House Use Right	Sea Area Use Right	Water Intake Right	BOT Concession Right	Carbon Emission Right	Renewables Obligation Certificate	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
At 31 December 2017 and 1 January 2018	132.0	3.0	39.7	15.4	3,120.4	—	—	3,310.5
Amortisation for the Year	38.7	0.2	4.9	1.4	237.6	—	4.5	287.3
Disposals	—	—	—	—	0.4	—	—	0.4
Impairment losses	—	—	—	—	122.9	—	—	122.9
At 31 December 2018	170.7	3.2	44.6	16.8	3,481.3	—	4.5	3,721.1
Carrying Amount								
At 31 December 2015	91.7	4.0	181.3	16.3	2,075.6	—	—	2,368.9
At 31 December 2016	112.9	3.8	176.3	14.9	1,948.6	2.1	—	2,258.6
At 31 December 2017	126.3	3.7	171.3	13.4	1,717.4	0.4	—	2,032.5
At 31 December 2018	142.3	3.5	166.4	12.0	1,374.4	1.0	307.8	2,007.4

The government has signed a concession agreement with Pacific, granting Pacific the right to undertake the investment, financing, construction and maintenance of the coal-fired power plant. Within the concession period stipulated in the agreement, the government granted Pacific the right to finance the construction and operation of the coal-fired power plant, and allowed Pacific to recover the invested capital and earn profits. The government has supervisory and regulatory authority over the infrastructure and the Pacific needs to transfer the coal-fired power plant to the government for free upon expiration of the concession at June of 2025.

17. Goodwill and impairment

Cost	RMB (m)
At 1 January 2016	5.2
Additions (note 48)	396.4
At 31 December 2016 and 1 January 2017	401.6
Exchange differences	12.6
At 31 December 2017 and 1 January 2018	414.2
Additions (note 48)	
Exchange differences	(4.8)
At 1 January 2019	409.4

The carrying amount of goodwill is allocated to the cash generating units (CGUs) as follows:

	2018	2017	2016	1/1/2016
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Name of invested entity or goodwill-generating event				
SDIC Xuancheng	5.2	5.2	5.2	5.2
Red Rock Power Limited	404.2	409.0	396.4	—
Total	409.4	414.2	401.6	5.2

The Group is required to test, on an annual basis, whether goodwill has suffered any impairment. The recoverable amount is determined based on value in use calculations. The use of this method requires the estimation of future cash flows and the determination of a discount rate in order to calculate the present value of the cash flows.

The recoverable amounts of the cash-generating units (CGUs) have been determined on the basis of their value in use using discounted cash flow (DCF) method. The key assumptions for the DCF method for power generation units include the expected tariff rates, demands of electricity in specific regions where these power plants are located and fuel cost.

The key assumptions for the DCF method are based on past practices and future expectations on market development.

The Group prepares cash flow forecasts derived from the most recent financial budgets approved by the directors for the best estimated period. The Group expects cash flows beyond the respective forecast periods below will be similar to that of last year of respective forecast based on existing production capacity.

The lifetime of Project Beatrice of Redrock is 25 years, which is the period over which the cash flows have been projected, the power price is GBP 140/MWh, and the main cost is operation maintenance. The discount rates used in respective value in use calculations are ranged from 8.00% to 9.00%, and the inflation rate are ranged from 2.00% to 3.00%. Based on these assessments, the Group believes that there is no impairment of goodwill at 31 December 2018, 2017 and 2016.

Notes forming part of the consolidated financial information
For the three years ended 31 December 2016, 31 December 2017 and 31 December 2018 (continued)

18. Subsidiaries

The principal subsidiaries of SDIC Power Holdings Co Ltd all of which have been included in this consolidated financial information, are as follows:

	Country of incorporation and principal place of business	Proportion of ownership interest at 31 December				Non-controlling interests ownership/ voting interest at 31 December			
		2018	2017	2016	2015	2018	2017	2016	2015
		%	%	%	%	%	%	%	%
SDIC Jingyuan Second Power Co., Ltd.	Lanzhou, Gansu	51	51	51	51	49	49	49	49
Fujian Pacific Electric Power Co., Ltd	Putian, Fujian	51	51	51	51	49	49	49	49
Xiamen Huaxia International Power Development Co., Ltd	Xiamen, Fujian	56	56	56	56	44	44	44	44
Xiamen Haicang Thermal Energy Investment Co., Ltd	Xiamen, Fujian	—	55	55	55	100	45	45	45
SDIC Beibu Bay Electric Power Co., Ltd	Beihai, Guangxi	55	55	55	55	45	45	45	45
Beihai Xinyuan Thermal Energy Co., Ltd	Beihai, Guangxi	50	50	50	50	50	50	50	50
SDIC Qinzhou Electric Power Co., Ltd	Qinzhou, Guangxi	61	61	61	61	39	39	39	39
SDIC Yili Energy Development Co., Ltd	Yili, Xinjiang	60	60	60	60	40	40	40	40
SDIC Panjiang Electric Power Co., Ltd	Liupanshui, Guizhou	55	55	55	55	45	45	45	45
SDIC Gansu Xiaosanxia Electric Power Co., Ltd.	Lanzhou, Gansu	60	60	60	60	40	40	40	40
Baiyin Yellow River Hydropower Co., Ltd.	Baiyin, Gansu	100	—	—	—	—	100	100	100
Baiyin Daxia Electric Power Co., Ltd.	Baiyin, Gansu	47	—	—	—	53	100	100	100
SDIC New Energy Investment Co., Ltd	Lanzhou, Gansu / Beijing	65	65	65	65	35	35	35	35
SDIC Baiyin Wind Power Co., Ltd	Baiyin, Gansu	65	65	65	65	35	35	35	35
SDIC Jiuquan First Wind Power Co., Ltd	Jiuquan, Gansu	42	42	42	42	58	58	58	58
SDIC Jiuquan Second Wind Power Co., Ltd	Jiuquan, Gansu	65	65	65	65	35	35	35	35
SDIC Hami Wind Power Co., Ltd	Hami, Xinjiang	65	65	65	65	35	35	35	35
SDIC Ningxia Wind Power Co., Ltd	Zhongwei, Ningxia	65	65	65	65	35	35	35	35
SDIC Qinghai Wind Power Co., Ltd	Haixi, Qinghai	52	52	52	65	48	48	48	35
SDIC Yunnan Wind Power Co., Ltd	Kunming, Yunnan	58	58	58	65	42	42	42	35
SDIC Turpan Wind Power Co., Ltd	Turpan, Xinjiang	65	65	65	65	35	35	35	35

18. Subsidiaries (continued)

	Country of incorporation and principal place of business	Proportion of ownership interest at 31 December				Non-controlling interests ownership/ voting interest at 31 December			
		2018	2017	2016	2015	2018	2017	2016	2015
		%	%	%	%	%	%	%	%
SDIC Dunhuang Photovoltaic Power Co., Ltd	Dunhuang, Gansu	65	65	65	65	35	35	35	35
SDIC Shizuishan Photovoltaic Power Co., Ltd	Shizuishan, Ningxia	65	65	65	65	35	35	35	35
SDIC Golmud Photovoltaic Power Co., Ltd.	Golmud, Qinghai	65	65	65	65	35	35	35	35
SDIC Chuxiong Wind Power Co., Ltd.	Chuxiong, Yunnan	58	58	58	58	42	42	42	42
SDIC Dali Photovoltaic Power Co., Ltd.	Dali, Yunnan	65	65	65	65	35	35	35	35
SDIC Guangxi Wind Power Co., Ltd.	Qinzhou, Guangxi	65	65	65	—	35	35	35	—
SDIC Tianjin New Energy Co., Ltd.	Tianjin	100	—	—	—	—	100	100	100
SDIC Yan'an New Energy Co., Ltd.	Yan'an, Shaanxi	100	—	—	—	—	100	100	100
SDIC Gansu Power Selling Co., Ltd.	Lanzhou, Gansu	65	65	65	—	35	35	35	—
SDIC Genting Meizhou Bay Electric Power Co., Ltd.	Putian, Fujian	51	51	51	51	49	49	49	49
SDIC Dingshi Overseas Investment Management Co., Ltd.	Xiamen, Fujian	100	100	100	—	—	—	—	—
Yalong River Basin Hydropower Development Co., Ltd.	Sichuan	52	52	52	52	48	48	48	48
Yalong River Hydropower Panzhihua Tongzilin Co., Ltd.	Panzhihua, Sichuan	52	52	52	52	48	48	48	48
Yalong River Hydropower Liangshan Co., Ltd.	Liangshan Prefecture, Sichuan	52	52	52	52	48	48	48	48
Sichuan Ertan Construction and Consultation Co., Ltd.	Chengdu, Sichuan	26	26	26	26	74	74	74	74
Sichuan Ertan Industrial Development Co., Ltd.	Chengdu, Sichuan	47	47	47	47	53	53	53	53
Yalong River Sichuan Energy Co., Ltd	Chengdu, Sichuan	52	52	52	—	48	48	48	48
Huili Powerchina Bridge New Energy Co., Ltd	Liangshan Yi Autonomous Prefecture, Sichuan	51	51	—	—	49	49	—	—
Mianning Powerchina Bridge New Energy Co., Ltd	Liangshan Yi Autonomous Prefecture, Sichuan	60	60	—	—	40	40	—	—
SDIC Yunnan Dachaoshan Hydropower Co., Ltd.	Kunming, Yunnan	50	50	50	50	50	50	50	50
Yunnan Dachao Industry Co., Ltd	Kunming, Yunnan	50	50	50	—	50	50	50	—

18. Subsidiaries (continued)

	Country of incorporation and principal place of business	Proportion of ownership interest at 31 December				Non-controlling interests ownership/ voting interest at 31 December			
		2018	2017	2016	2015	2018	2017	2016	2015
		%	%	%	%	%	%	%	%
Tianjin SDIC Jinneng Electric Power Co., Ltd.	Tianjin	64	64	64	64	36	36	36	36
Tianjin Beijiang Environmental Protection Building Material Co., Ltd	Tianjin	64	64	64	—	36	36	36	—
SDIC Xuancheng Electric Power Co., Ltd	Xuancheng, Anhui	51	51	51	51	49	49	49	49
Anhui Guoxuan Energy Sales Co., Ltd.	Xuancheng, Anhui	100	—	—	—	—	—	—	—
Jaderock Investment Singapore Pte Ltd	Singapore	100	100	100	100	—	—	—	—
Redrock Investment Limited	London, the UK	100	100	100	—	—	—	—	—
Red Rock Power Limited	Scotland, the UK	100	100	100	—	—	—	—	—
Inch Cape Offshore Limited	Scotland, the UK	100	100	100	—	—	—	—	—
Beatrice Wind Limited	Scotland, the UK	100	100	100	—	—	—	—	—
Afton Wind Farm (Holdings) Limited	Scotland, the UK	100	—	—	—	—	100	100	100
Afton Wind Farm Limited	Scotland, the UK	100	—	—	—	—	100	100	100
Afton Wind Farm (BMO) Limited	Scotland, the UK	100	—	—	—	—	100	100	100
Yunnan Metallurgical New Energy Co., Ltd.	Honghe, Yunnan	100	—	—	—	—	100	100	100
SDIC Aksai New Energy Co., Ltd.	Jiuquan, Gansu	65	—	—	—	35	100	100	100

The Group holds an interest in Baiyin Daxia Electric Power Co., Ltd, SDIC Jiuquan First Wind Power Co., Ltd, Sichuan Ertan Construction and Consultation Co., Ltd. and Sichuan Ertan Industrial Development Co., Ltd. that is below 50%. The Group believes they control these entities as they hold a significant proportion of equity relative to other equity holders and have the majority representation on the Board of Directors.

19. Investments in associates

	Proportion of ownership interest			
	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Brought forward	8,729.6	8,846.8	2,639.0	2,503.5
Share of profit for the year	521.5	345.7	631.2	551.0
Share of other comprehensive income	42.5	28.3	79.5	—
Additions	1,462.6	—	4,926.8	100.8
Acquired on business combination	—	—	987.1	—
Disposals	—	—	(0.4)	—
Dividends received	(303.8)	(458.1)	(714.5)	(516.3)
Other	71.4	(33.1)	298.1	—
At 31 December	10,523.8	8,729.6	8,846.8	2,639.0
Unlisted Investments				
Share of carrying amount of interests	7,626.4	6,780.1	6,750.7	2,639.0

19. Investments in associates (continued)

The following entities have been included in the consolidated financial information using the equity method:

Company	Country of incorporation and principal place of business	Proportion of ownership interest			
		2018	2017	2016	2015
		%	%	%	%
Xuzhou CR Power Co., Ltd	Xuzhou, Jiangsu	30	30	30	30
Tongshan CR Power Co., Ltd	Xuzhou, Jiangsu	21	21	21	21
Huaibei Guoan Electric Power Co., Ltd	Huaibei, Anhui	35	35	35	35
Jiangsu Ligang Electric Power Co., Ltd	Wuxi, Jiangsu	17	17	17	17
Jiangyin Ligang Power Generation Co., Ltd	Jiangyin, Jiangsu	9	9	9	9
Jiangxi Ganneng Co., Ltd	Nanchang, Jiangxi	34	34	34	—
Lestari Listrik Pte. LTD	Singapore	42	42	42	—
SDIC Finance Co., Ltd	Beijing	35	35	35	—
Hanlan Environment Co., Ltd.	Foshan, Guangdong	9	—	—	—

The presumed ownership percentage under IAS 28 Investments in Associates for significant influence to exist is 20%. The Group consider they exert significant influence over Jiangsu Ligang, Jiangyin Ligang and Hanlan Environment as they hold a significant proportion of equity relative to other equity holders and have representation on the Board of Directors.

a) Summarised financial information (material associates)

Name	Xuzhou CR Power Co., Ltd			
	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Principal activities	Coal-fired Power			
% of ownership interests/voting rights held by the Group	30.00%	30.00%	30.00%	30.00%
At 31 December:				
Non-Current assets	1,471.1	1,536.4	1,562.1	1,435.1
Current assets	617.5	633.5	657.9	736.8
Non-current liabilities	69.5	74.5	71.6	59.1
Current liabilities	911.6	942.0	827.4	553.6
Net assets	1,107.5	1,153.4	1,321.1	1,559.3
Group's share of net assets	330.1	344.1	394.6	467.8
Others	(6.2)	(6.2)	(6.2)	(11.0)
Group's share of carrying amount of interests	323.9	337.9	388.3	456.8
Year ended 31 December:				
Revenue	1,842.2	1,953.2	1,955.2	2,112.6
(Loss)/profit from continuing operations	80.3	137.3	303.9	571.5
Post-tax profit or loss from continuing operations	—	—	—	—
Other comprehensive income	—	—	—	—
Total comprehensive income	80.3	137.3	303.9	571.5
Dividends received from associated	37.9	91.0	160.5	129.1

19. Investments in associates (continued)

a) Summarised financial information (material associates) (continued)

Name	Tongshan CR Power Co., Ltd			
	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Principal activities	Coal-fired Power			
% of ownership interests/voting rights held by the Group	21.00%	21.00%	21.00%	21.00%
At 31 December:				
Non-Current assets	3,816.2	4,121.9	4,449.9	4,654.1
Current assets	767.0	567.3	576.8	579.5
Non-current liabilities	423.8	667.7	909.6	1,350.0
Current liabilities	2,000.8	1,916.8	1,688.0	1,270.5
Net assets	2,158.5	2,104.7	2,429.1	2,613.1
Group's share of net assets	453.3	442.0	510.1	548.7
Others	(1.5)	(1.5)	(1.5)	(1.5)
Group's share of carrying amount of interests	451.8	440.5	508.6	547.2
Year ended 31 December:				
Revenue	3,128.0	3,276.1	3,382.7	3,616.7
(Loss)/profit from continuing operations	258.3	227.1	610.0	880.5
Post-tax profit or loss from continuing operations	—	—	—	—
Other comprehensive income	—	—	—	—
Total comprehensive income	258.3	227.1	610.0	880.5
Dividends received from associated	42.9	115.8	166.7	141.2

Name	Huaibei Guoan Electric Power Co., Ltd			
	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Principal activities	Coal-fired Power			
% of ownership interests/voting rights held by the Group	35.00%	35.00%	35.00%	35.00%
At 31 December:				
Non-Current assets	686.5	716.2	745.9	848.0
Current assets	340.4	335.7	396.1	427.5
Non-current liabilities	6.2	3.9	3.4	5.2
Current liabilities	193.2	172.1	131.4	162.2
Net assets	827.5	875.9	1,270.0	1,108.0
Group's share of net assets	276.1	292.6	349.7	387.8
Others	1.9	1.9	1.9	16.4
Group's share of carrying amount of interests	278.0	294.5	351.6	404.2
Year ended 31 December:				
Revenue	700.1	630.5	738.9	950.4
(Loss)/profit from continuing operations	(48.4)	(104.4)	61.1	17.7
Post-tax profit or loss from continuing operations	—	—	—	—
Other comprehensive income	—	—	—	—
Total comprehensive income	(48.4)	(104.4)	61.1	176.7
Dividends received from associated	—	20.6	59.5	45.5

19. Investments in associates (continued)

a) Summarised financial information (material associates) (continued)

Name	Jiangsu Ligang Electric Power Co., Ltd			
	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Principal activities	Coal-fired Power			
% of ownership interests/voting rights held by the Group	17.47%	17.47%	17.47%	17.47%
At 31 December:				
Non-Current assets	1,998.6	2,210.7	2,317.8	2,253.3
Current assets	646.8	873.4	976.9	1,318.8
Non-current liabilities	20.0	26.0	33.0	25.3
Current liabilities	68.0	384.2	291.2	313.7
Net assets	2,557.5	2,674.0	2,970.5	3,233.1
Group's share of net assets	446.8	467.1	518.9	564.8
Others	17.8	15.2	15.2	8.2
Group's share of carrying amount of interests	464.6	482.3	534.1	573.0
Year ended 31 December:				
Revenue	2,545.6	2,620.2	2,326.9	2,335.7
(Loss)/profit from continuing operations	181.4	157.3	313.2	435.2
Post-tax profit or loss from continuing operations	—	—	—	—
Other comprehensive income	—	—	—	—
Total comprehensive income	181.4	157.3	313.2	435.2
Dividends received from associated	49.4	75.3	95.6	169.5

Name	Jiangyin Ligang Power Generation Co., Ltd			
	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Principal activities	Coal-fired Power			
% of ownership interests/voting rights held by the Group	9.17%	9.17%	9.17%	9.17%
At 31 December:				
Non-Current assets	8,254.8	9,004.4	9,632.6	9,776.3
Current assets	1,919.4	1,811.1	2,142.8	1,856.6
Non-current liabilities	3,229.9	3,558.2	4,381.8	5,251.1
Current liabilities	3,355.0	3,928.4	3,925.4	2,670.5
Net assets	3,431.0	3,328.9	3,468.2	3,711.4
Group's share of net assets	314.6	292.6	305.8	328.5
Others	16.4	17.9	17.9	10.7
Group's share of carrying amount of interests	331.0	310.5	323.7	339.2
Year ended 31 December:				
Revenue	9,318.4	8,858.2	8,009.0	7,556.3
(Loss)/profit from continuing operations	716.0	524.7	908.8	1,138.7
Post-tax profit or loss from continuing operations	—	—	—	—
Other comprehensive income	—	—	—	—
Total comprehensive income	716.0	524.7	908.8	1,139.0
Dividends received from associated	43.2	56.7	100.5	2,350.7

19. Investments in associates (continued)

a) Summarised financial information (material associates) (continued)

Name	Jiangxi Ganneng Co., Ltd			
	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Principal activities	Power Generation			
% of ownership interests/voting rights held by the Group	33.72%	33.72%	33.72%	33.72%
At 31 December:				
Non-Current assets	5,398.3	5,287.6	5,619.2	5,242.3
Current assets	1,761.0	1,717.1	1,766.5	731.8
Non-current liabilities	526.7	870.5	1,144.9	1,460.8
Current liabilities	2,396.1	1,980.4	1,654.1	1,889.7
Net assets	4,236.6	4,153.8	4,586.7	2,623.6
Group's share of net assets	1,428.6	1,400.7	1,546.6	—
Others	(0.6)	(0.6)	—	—
Group's share of carrying amount of interests	1,977.4	1,949.5	2,096.1	—
Year ended 31 December:				
Revenue	2,567.6	2,126.3	2,176.6	1,169.4
(Loss)/profit from continuing operations	82.7	(118.2)	196.3	267.1
Post-tax profit or loss from continuing operations	—	—	—	—
Other comprehensive income	—	(23.9)	6.9	16.1
Total comprehensive income	82.7	(142.1)	203.1	283.2
Dividends received from associated	—	98.7	131.6	—

Name	Lestari Listrik Pte. LTD			
	2018	2017	2016	2015
	RMB(m)	RMB (m)	RMB (m)	RMB (m)
Principal activities	Investment management			
% of ownership interests/voting rights held by the Group	42.11%	42.11%	42.11%	42.11%
At 31 December:				
Non-Current assets	6,039.3	5,810.7	5,739.8	4,683.4
Current assets	2,062.5	1,656.6	899.5	79.8
Non-current liabilities	5,741.7	4,514.3	5,379.3	3,612.4
Current liabilities	827.1	1,871.1	562.1	873.3
Net assets	1,533.0	1,082.1	697.9	277.6
Group's share of net assets	645.5	455.7	293.9	—
Others	674.9	663.0	732.0	—
Group's share of carrying amount of interests	1,320.4	1,118.7	1,025.8	—
Year ended 31 December:				
Revenue	1,675.9	1,575.4	2,122.7	2,143.7
(Loss)/profit from continuing operations	240.3	287.3	326.7	169.0
Post-tax profit or loss from continuing operations	—	—	—	—
Other comprehensive income	100.1	86.3	78.2	(120.5)
Total comprehensive income	340.5	373.6	404.9	48.6
Dividends received from associated	2.8	—	—	—

Notes forming part of the consolidated financial information
For the three years ended 31 December 2016, 31 December 2017 and 31 December 2018 (continued)

19. Investments in associates (continued)

a) Summarised financial information (material associates) (continued)

Name	SDIC Finance Co., Ltd			
	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Principal activities	Financial investment			
% of ownership interests/voting rights held by the Group	35.40%	35.40%	35.40%	35.40%
At 31 December:				
Non-Current assets	20,466.8	21,237.0	16,161.9	15,210.3
Current assets	9,095.0	6,070.7	8,683.5	7,623.0
Non-current liabilities	1.1	0.1	0.4	2.0
Current liabilities	22,357.9	20,316.4	18,315.2	19,765.2
Net assets	7,202.8	6,991.2	6,529.7	3,066.0
Group's share of net assets	2,549.8	2,474.9	2,311.5	—
Others	—	—	(1.1)	—
Group's share of carrying amount of interests	2,549.8	2,474.9	2,310.4	—
Year ended 31 December:				
Revenue	964.3	798.0	681.1	806.1
(Loss)/profit from continuing operations	533.6	461.4	336.6	505.3
Post-tax profit or loss from continuing operations	—	—	—	—
Other comprehensive income	1.1	—	(24.1)	(126.1)
Total comprehensive income	534.7	461.5	312.5	379.1
Dividends received from associated	114.3	—	—	—

Name	Hanlan Environment Co., Ltd.			
	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Principal activities	Environmental protection			
% of ownership interests/voting rights held by the Group	8.62%	8.62%	—	—
At 31 December:				
Non-Current assets	14,108.7	12,010.8	—	—
Current assets	2,383.5	2,101.9	—	—
Non-current liabilities	6,277.4	5,050.5	—	—
Current liabilities	3,790.4	2,964.3	—	—
Net assets	6,424.3	6,097.9	—	—
Group's share of net assets	502.6	—	—	—
Others	417.4	—	—	—
Group's share of carrying amount of interests	920.0	—	—	—
Year ended 31 December:				
Revenue	4,848.5	4,202.1	—	—
(Loss)/profit from continuing operations	878.8	697.3	—	—
Post-tax profit or loss from continuing operations	—	—	—	—
Other comprehensive income	—	—	—	—
Total comprehensive income	878.8	697.3	—	—
Dividends received from associated	13.2	—	—	—

20. Fair value through other comprehensive income investments

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
1 January	95.3	90.0	289.0	279.0
Additions	94.8	4.9	80.0	10.0
Disposals	—	—	(279.0)	—
Change in fair value recognised in OCI	(1.3)	0.4	—	—
31 December	188.8	95.3	90.0	289.0

See note 47 for details of valuation of the above assets.

21. Long term receivable

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Shareholder Loans	1,079.5	472.7	453.7	—
Others	65.8	64.2	64.2	—
Impairment	(18.7)	(6.2)	—	—
	1,126.6	530.7	517.9	—

The shareholder loan is interest free and repayable on demand. It has been classified as non-current based on expectation of recovery rather than terms of legal agreement.

22. Deferred tax

	Assets impairment reserve	Unpaid expense	Unpaid employee salary	Deferred income	Unrealised profit on internal transaction	Depreciation of fixed assets	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
At 1 January 2016	32.3	58.7	8	20.9	15.4	17.7	153.0
Credit to profit or loss for the year	6.7	38.4	—	6.9	0.3	0	52.3
At 31 December 2016 and 1 January 2017	39.0	97.1	8.0	27.8	15.7	17.7	205.3
Credit/ (charge) to profit or loss for the year	—	25.0	(2.2)	0.3	1.1	7.9	32.1
At 31 December 2017 and 1 January 2018	39.0	122.1	5.8	28.1	16.8	25.6	237.4
Credit/ (charge) to profit or loss for the year	10.8	37.7	—	1.8	(1.2)	1.2	50.3
At 31 December 2018	49.8	159.8	5.8	29.9	15.6	26.8	287.7

22. Deferred tax (continued)

The following are the deferred tax liabilities (before offset) recognised by the Group:

	Depreciation of fixed assets	Amortisation of intangible assets	Others	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
At 1 January 2016	6.2	17.0	18.2	41.4
Credit to profit or loss for the year	(6.2)	(1.7)	(2.4)	(10.3)
At 31 December 2016 and 1 January 2017	—	15.3	15.8	31.1
Charge/ (credit) to profit or loss for the year	—	(2.1)	12.6	10.5
At 31 December 2017 and 1 January 2018	—	13.2	28.4	41.6
Charge/ (credit) to profit or loss for the year	0.5	3.8	1.1	5.4
At 31 December 2018 and 1 January 2019	0.5	17.0	29.5	47.0

The Following is the list of unrecognised deferred income tax assets:

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Deductible temporary difference	12.3	11.5	12.6	11.3
Tax losses	951.9	821.4	645.6	436.6
Total	964.2	832.9	658.2	447.9

No deferred tax asset has been recognised in respect of the above items including the tax benefit of unused tax losses of RMB4,146.1m (2017: RMB3,508.8m, 2016: RMB2,582.4m) due to the uncertainty of future profits arising to the use of the tax losses. An analysis of the tax losses by expiry is shown below.

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
2016	—	—	—	291.3
2017	—	—	346.7	346.7
2018	—	372.1	372.1	372.1
2019	388.8	387.8	387.8	387.8
2020	519.1	348.5	348.5	348.5
2021	1,153.0	1,127.6	1,127.3	—
2022	1,235.8	1,272.8	—	—
2023	849.4	—	—	—
	4,146.1	3,508.8	2,582.4	1,746.4

23. Other non-current asset

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
VAT recoverable	836.4	664.8	256.8	—
Prepayments for equipment	157.0	—	—	—
	993.4	664.8	256.8	—

24. Inventories

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)	2015 RMB (m)
Raw materials and consumables	1,515.0	1,180.4	1,067.1	842.6
Finished goods and goods for resale	1.7	2.8	1.0	2.8
	1,516.7	1,183.2	1,068.1	845.4

25. Accounts and notes receivables

Accounts and notes receivables of the Group primarily represent receivables from regional or provincial grid companies for tariff revenue and coal sales customers and comprise the following:

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)	2015 RMB (m)
Notes receivables	579.4	484.6	450.7	238.7
Accounts receivables	5,233.6	3,551.6	2,577.8	2,406.3
	5,813.0	4,036.2	3,028.5	2,645.0

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)	2015 RMB (m)
Trade receivables	5,449.1	3,706.0	2,737.9	2,541.0
Less: provisions for impairment of trade receivables	(215.5)	(154.4)	(160.1)	(134.7)
Trade receivables—net	5,233.6	3,551.6	2,577.8	2,406.3

Movements in the impairment allowance for trade receivables are as follows:

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)	2015 RMB (m)
Opening provision	154.4	160.1	134.7	76.5
Increase during the year	157.6	64.9	44.2	65.6
Reversal of impairment	(96.5)	(9.2)	(18.8)	(7.4)
Written off	—	(61.4)	—	—
At 31 December	215.5	154.4	160.1	134.7

26. Prepayments and other receivables

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)	2015 RMB (m)
Prepayments	355.4	370.0	380.5	1,607.9
Interest receivable	4.0	12.0	6.0	12.2
Dividends receivable	—	—	20.7	14.9
Other receivables	96.8	158.2	64.5	106.8
	456.2	540.2	471.7	1,741.8

27. Tax recoverable

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
VAT recoverable	1,114.2	1,348.6	1,606.8	710.0
Corporate income tax recoverable	32.2	36.3	104.5	—
Total	1,146.4	1,384.9	1,711.3	710.0

28. Cash and cash equivalents

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Bank Deposits	7,409.8	4,968.4	4,150.9	6,122.8
Cash in hand	0.3	0.3	0.3	0.6
Others	59.9	3.7	3.1	—
Total	7,470.0	4,972.4	4,154.3	6,123.4

29. Restricted deposits

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Restricted deposits	130.5	158.3	186.3	203.4

30. Fair value through profit and loss

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Debt instrument	844.7	—	—	—

31. Other current assets

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Processing liquidation of fixed assets	0.1	7.4	7.3	8.5

32. Share capital

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Registered, issued and fully paid:				
Shares of RMB1 each	6,786.0	6,786.0	6,786.0	6,786.0

Each share is entitled to one vote and they entitle the holder to participate in dividends, and to a share in the proceeds of winding up the company in proportion of the shares held. There have been no share issues in the entity in the year ended 31 December 2016 or the year ended 31 December 2017 or the year ended 31 December 2018.

33. Other equity Instrument

Basic information of preferred shares, perpetual bonds or other financial instrument:

Number of issue	Renewable corporate bonds issued openly in 2018 (Tranche 1)	Renewable corporate bonds issued openly in 2018 (Tranche 2)	Renewable corporate bonds issued openly in 2018 (Tranche 3)
Approval No.		ZJXK (2017) No. 531	
Date of issue	From March 14 to 15, 2018	From May 8 to 9, 2018	From July 17 to 18, 2018
Total amount issued actually	RMB0.5 billion Yuan	RMB1.5 billion Yuan	RMB2 billion Yuan
Time limit	The basic period of bonds of this tranche is 3 years; at the end of agreed basic period or at the end of every period, the issuer is entitled to exercise the renewal option, and extend for one period as per the agreed basic period; if the issuer does not exercise the renewal option, the due bonds shall be cashed in full amount. The issuer can exercise the renewal option indefinitely.		
Renewal option	One period of bonds of this tranche is 3 years. At end of every period, the issuer is entitled to extend the period of bonds for 1 period, or cash the bonds of this period in full amount at end of this period. The issuer shall publish a bulletin about exertion of renewal option on the relevant media at least 30 workdays before the interest paying data in the year when the renewal option is exercised.		
	(1) Issuer redeems due to changes in tax policy		
	Due to the change or amendment of related laws and regulations, the issuer has to pay extra taxes and fees for the continuity of current bonds, and the issuer has the right to redeem the current-period bonds when it can not avoid paying or reimbursing these taxes.		
Right of redemption	(2) Issuer redeems due to changes in accounting standards		
	According to the "Accounting Standards for Enterprises No. 37—Financial Instruments presentation" (Accounting [2014] No. 23) and the "Notice on Issuance of Distinction between Financial Liabilities and Equity Instruments and Relevant Accounting Processing Regulations" (Accounting [2014] No. 13), the issuer has classified the current bonds as equity instruments. If in the future, due to the change of accounting standards or other relevant laws and regulations, the issuer has the right to redeem this bond.		
	The issuer will redeem all current-period bonds from the investors at the par value plus current-period interest and deferred interest and their compound interest (if any). The payment method of redemption is the same as the payment of principal and interest at maturity of current-period bonds, the list of bondholders shall be counted according to the relevant provisions of the current-period bond registration institution and processing in accordance with the relevant provisions of the current-period bond registration agency. If the issuer does not exercise the option of redemption, the current-period bonds will continue to rollover.		
	In addition to the above two cases, the issuer has no right or obligation to redeem this current-period bond.		
	The issuer has the right to defer the payment of interest. The issuer can, at its own discretion, defer the current interest payment and any compound interest to the next interest payment date without any time limitation. The issuer is only required to make interest payments in case a dividend is declared. If the issuer does not exercise the right of deferred payment of interest, the interest is required to be paid once a year.		

33. Other equity Instrument (continued)

Number of issue	Renewable corporate bonds issued openly in 2018 (Tranche 1)	Renewable corporate bonds issued openly in 2018 (Tranche 2)	Renewable corporate bonds issued openly in 2018 (Tranche 3)
Interest rate	Tranche 1	Tranche 2	Tranche 3
	In the first three interest-accrual years, the nominal interest rate is 5.50%. If the issuer does not exercise the right of redemption, the nominal interest rate shall be reset once every three years starting from the fourth interest-accrual year, and the new interest rate shall be current basic interest rate + initial interest margin upon issuance + 300 basic points.	In the first three interest-accrual years, the nominal interest rate is 5.23%. If the issuer does not exercise the right of redemption, the nominal interest rate shall be reset once every three years starting from the fourth interest-accrual year, and the new interest rate shall be current basic interest rate + initial interest margin upon issuance + 300 basic points.	In the first three interest-accrual years, the nominal interest rate is 4.98%. If the issuer does not exercise the right of redemption, the nominal interest rate shall be reset once every three years starting from the fourth interest-accrual year, and the new interest rate shall be current basic interest rate + initial interest margin upon issuance + 300 basic points.

List of changes in preferred shares, perpetual bonds or other financial instrument:

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Renewable corporate bonds in 2018 (Tranche 1)	499.9	—	—	—
Renewable corporate bonds in 2018 (Tranche 2)	1,499.7	—	—	—
Renewable corporate bonds in 2018 (Tranche 3)	1,999.4	—	—	—
	3,999.0	—	—	—

34. Reserves

(a) *Group*

The amounts of the Group's reserves and movements therein are presented in the consolidated statement of profit or loss and other comprehensive income and consolidated statement of changes in equity.

(b) *Nature and purpose of reserves*

(i) Capital reserve

Capital reserve mainly comprised: (i) the difference between the nominal amount of the domestic shares issued and the fair value of the net assets injected into the Company during its formation and also proceeds from the issue of A shares in excess of their par value, net of issuance expenses; and (ii) the difference between acquisition cost and net book value under common control. The capital reserve is non-distributable.

(ii) Statutory surplus reserve

In accordance with the relevant laws and regulations of the PRC and the articles of association of the Company, it is required to appropriate 10% of its net profit under PRC

34. Reserves (continued)

(b) Nature and purpose of reserves (continued)

(ii) Statutory surplus reserve (continued)

GAAP, after offsetting any prior years' losses, to the statutory surplus reserve. When the balance of such reserve reaches 50% of the Company's share capital, any further appropriation is optional.

The statutory surplus reserve can be used to offset prior years' losses, if any, and may be converted into share capital by issuing new shares to shareholders in proportion to their existing shareholding or by increasing the par value of the shares currently held by them, provided that the remaining balance of the reserve after such an issue is not less than 25% of share capital. The statutory surplus reserve is non-distributable.

(iii) Discretionary surplus reserve

Pursuant to the articles of association of the Company, the appropriation of profit to the discretionary surplus reserve and its utilisation are made in accordance with the recommendation of the Board of Directors and is subject to shareholders approval at their general meeting.

The discretionary surplus can be used to offset prior year losses, if any, and may be converted into share capital by issuing new shares to shareholders in proportion to their existing holding or by increasing the par value of the shares currently held by them.

(iv) Portion of other comprehensive income of associates reserve

Represents the other comprehensive income of associates.

(v) Foreign currency translation reserve

Represents the cumulative exchange differences arising on retranslation of the net assets of overseas operations.

(vi) Fair value of other comprehensive income equity investments

Represents the gain on fair value measurement of other comprehensive equity instruments.

(c) Basis for profit appropriation

In accordance with the articles of association of the Company, distributable profit of the Company is derived based on the profit determined in accordance with PRC GAAP.

35. Non-controlling Interests

Details of the ownership interests of subsidiaries are detailed in note 18. The details of each material non-controlling interest are included below.

Name	SDIC Jingyuan Second Power Co., Ltd.			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	878.9	505.9	796.1	939.1
Operating (loss)	(508.9)	(297.4)	(244.7)	(150.7)
(Loss) allocated to NCI	(248.3)	(145.1)	(119.4)	(73.5)
Total comprehensive income	(508.9)	(297.4)	(244.7)	(150.7)
Dividends paid to NCI	—	—	—	36.9
Cash flows from operating activities	(155.7)	(196.5)	82.6	341.6
As at 31 December				
Assets:				
Current assets	461.1	313.8	405.4	323.6
Non-current assets	1,515.8	1,969.1	2,030.8	2,002.6
Liabilities:				
Current liabilities	1,226.3	1,047.7	981.9	582.8
Non-current liabilities	539.2	494.5	416.2	460.6
Accumulated non-controlling interest	103.2	361.3	506.4	625.8

Name	Fujian Pacific Electric Power Co., Ltd.			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	1,045.3	1,241.7	1,180.3	1,532.2
Operating profit/(loss)	(257.7)	(19.3)	78.9	289.0
Profit/(loss) allocated to NCI	(126.3)	(9.4)	38.7	141.6
Total comprehensive income	(257.7)	(19.3)	78.9	289.0
Dividends paid to NCI	—	26.7	119.3	102.3
Cash flows from operating activities	316.7	349.9	314.6	—
As at 31 December				
Assets:				
Current assets	701.6	748.6	526.7	757.6
Non-current assets	1,473.6	1,821.5	2,051.5	2,202.3
Liabilities:				
Current liabilities	334.0	406.5	373.9	387.3
Non-current liabilities	711.2	775.8	742.9	946.4
Accumulated non-controlling interest	553.7	680.0	716.1	796.8

35. Non-controlling Interests (continued)

Name	SDIC Xiamen Huaxia International Power Development Co., Ltd			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	1,827.0	1,430.4	967.8	1,527.1
Operating profit	129.0	27.2	8.0	205.2
Profit allocated to NCI	56.8	12.0	2.6	89.7
Total comprehensive income	129.1	27.2	7.6	205.2
Dividends paid to NCI	—	—	82.3	145.3
Cash flows from operating activities	404.1	235.2	197.9	602.4
As at 31 December				
Assets:				
Current assets	450.3	438.3	260.1	416.0
Non-current assets	2,191.3	2,376.1	2,308.1	1,861.7
Liabilities:				
Current liabilities	479.9	677.0	713.3	119.6
Non-current liabilities	680.3	765.0	509.8	633.6
Accumulated non-controlling interest	651.8	614.9	602.9	682.7

Name	SDIC Beibu Bay Electric Power Co., Ltd			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	1,251.7	916.9	680.8	916.9
Operating profit/(loss)	2.6	(110.9)	(1.3)	(110.9)
Profit/(loss) allocated to NCI	1.2	(49.9)	(0.6)	57.5
Total comprehensive income	2.6	(110.9)	(1.3)	(110.9)
Dividends paid to NCI	—	—	—	—
Cash flows from operating activities	203.1	82.6	146.4	82.6
As at 31 December				
Assets:				
Current assets	371.7	294.1	262.8	294.1
Non-current assets	1,132.7	1,250.6	1,192.9	1,250.6
Liabilities:				
Current liabilities	673.6	526.6	534.7	526.6
Non-current liabilities	524.7	711.5	503.5	711.5
Accumulated non-controlling interest	139.1	139.3	189.1	189.7

35. Non-controlling Interests (continued)

Name	SDIC Qinzhou Electric Power Co., Ltd			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	3,757.8	2,221.1	1,447.0	1,304.6
Operating profit/(loss)	2.7	(317.3)	(9.6)	91.9
Profit/(loss) allocated to NCI	1.1	123.7	(3.7)	35.9
Total comprehensive income	2.7	(317.3)	(9.6)	91.9
Dividends paid to NCI	—	—	32.3	88.2
Cash flows from operating activities	544.5	580.6	323.4	719.8
As at 31 December				
Assets:				
Current assets	1,193.6	874.5	805.5	453.3
Non-current assets	6,252.6	6,792.7	7,196.8	6,227.4
Liabilities:				
Current liabilities	983.8	1,340.1	1,143.3	1,488.1
Non-current liabilities	4,367.2	4,234.5	4,449.3	3,250.5
Accumulated non-controlling interest	817.1	816.1	939.8	659.9

Name	SDIC Yili Energy Development Co., Ltd			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	538.4	510.7	440.3	563.2
Operating profit/(loss)	(132.6)	(56.6)	(69.3)	2.5
Profit/(loss) allocated to NCI	(53.1)	(22.6)	(27.7)	1.0
Total comprehensive income	(132.6)	(56.6)	(69.3)	2.5
Dividends paid to NCI	—	—	0.9	37.9
Cash flows from operating activities	120.7	173.1	142.4	230.3
As at 31 December				
Assets:				
Current assets	349.6	313.5	222.4	307.9
Non-current assets	2,233.2	2,315.5	2,409.9	2,437.9
Liabilities:				
Current liabilities	462.5	304.4	218.2	289.6
Non-current liabilities	1,662.9	1,734.5	1,767.5	1,786.6
Accumulated non-controlling interest	163.6	216.7	239.3	267.9

35. Non-controlling Interests (continued)

Name	SDIC Panjiang Electric Power Co., Ltd			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	792.8	693.9	635.7	675.7
Operating profit	54.2	13.3	12.6	10.2
Profit allocated to NCI	24.4	6.0	5.7	4.6
Total comprehensive income	54.2	13.3	12.6	10.2
Dividends paid to NCI				
Cash flows from operating activities	220.1	377.5	128.6	186.4
As at 31 December				
Assets:				
Current assets	223.2	221.0	297.3	156.3
Non-current assets	2,030.1	2,138.6	2,246.4	2,203.4
Liabilities:				
Current liabilities	258.6	300.4	270.5	266.2
Non-current liabilities	1,421.2	1,539.9	1,767.2	1,600.0
Accumulated non-controlling interest	258.1	233.7	227.7	222.0

Name	SDIC Gansu Xiaosanxia Electric Power Co., Ltd			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	725.8	695.9	668.7	706.1
Operating profit	236.6	210.3	187.6	199.8
Profit allocated to NCI	94.0	83.2	74.2	79.0
Total comprehensive income	236.6	210.3	187.5	199.8
Dividends paid to NCI	99.3	619.0	72.5	77.4
Cash flows from operating activities	327.1	377.5	292.3	479.3
As at 31 December				
Assets:				
Current assets	299.6	214.4	117.2	219.5
Non-current assets	2,349.8	2,442.2	2,544.8	2,487.7
Liabilities:				
Current liabilities	898.5	747.6	771.5	696.1
Non-current liabilities	487.2	633.6	668.8	793.6
Accumulated non-controlling interest	521.0	483.2	504.5	481.5

35. Non-controlling Interests (continued)

Name	**SDIC New Energy Investment Co., Ltd**			
Year	**2018**	**2017**	**2016**	**2015**
	RMB (m)	**RMB (m)**	**RMB (m)**	**RMB (m)**
For the period ended 31 Dec				
Revenue	980.2	721.2	507.7	502.6
Operating profit/(loss)	153.4	51.5	(34.5)	(10.5)
Profit/(loss) allocated to NCI	59.5	20.1	(16.3)	(4.4)
Total comprehensive income	153.4	51.5	(34.5)	(10.5)
Dividends paid to NCI	18.3	32.4	7.5	42.6
Cash flows from operating activities	348.8	330.2	401.5	525.2
As at 31 December				
Assets:				
Current assets	2,037.7	1,765.6	1,462.9	1,251.0
Non-current assets	7,839.1	6,524.9	6,372.0	4,808.2
Liabilities:				
Current liabilities	2,178.9	1,615.1	2,490.1	888.6
Non-current liabilities	5,308.9	4,402.5	3,046.3	2,843.4
Accumulated non-controlling interest	1,091.0	1,049.8	1,057.1	1,064.8

Name	**SDIC Genting Meizhou Bay Electric Power Co., Ltd.**			
Year	**2018**	**2017**	**2016**	**2015**
	RMB (m)	**RMB (m)**	**RMB (m)**	**RMB (m)**
For the period ended 31 Dec				
Revenue	3,966.8	1,450.8	—	—
Operating profit/(loss)	286.5	(88.4)	—	—
Profit/(loss) allocated to NCI	140.4	(43.3)	—	—
Total comprehensive income	286.5	(88.4)	—	—
Dividends paid to NCI	—	—	—	—
Cash flows from operating activities	720.0	(183.6)	—	—
As at 31 December				
Assets:				
Current assets	1,390.8	1,162.5	452.7	482.0
Non-current assets	4,961.1	5,299.7	5,385.1	3,039.5
Liabilities:				
Current liabilities	815.5	1,324.8	1,896.6	1,938.6
Non-current liabilities	3,498.4	3,385.8	2,101.3	601
Accumulated non-controlling interest	998.6	858.3	901.6	—

35. Non-controlling Interests (continued)

Name	Yalong River Basin Hydropower Development Co., Ltd.			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	17,605.7	16,279.0	16,398.1	16,723.8
Operating profit	7,284.8	6,888.0	7,326.3	7,779.7
Profit allocated to NCI	3,498.9	3,307.4	3,516.6	3,735.1
Total comprehensive income	7,284.9	6,888.0	7,325.4	7,797.7
Dividends paid to NCI	2,640.0	2,832.0	3,025.4	2,953.9
Cash flows from operating activities	13,850.6	14,130.1	14,640.1	15,674.0
As at 31 December				
Assets:				
Current assets	4,044.1	3,192.1	3,361.8	3,099.3
Non-current assets	139,978.7	136,803.0	132,447.0	125,130.0
Liabilities:				
Current liabilities	17,750.2	19,696.3	21,082.8	23,125.9
Non-current liabilities	77,112.4	75,923.5	75,270.2	70,971.5
Accumulated non-controlling interest	23,638.0	21,329.1	18,950.2	16,395.1

Name	SDIC Yunnan Dachaoshan Hydropower Co., Ltd.			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	1,422.0	8,604.3	905.1	988.0
Operating profit	906.5	5,616.5	554.4	522.0
Profit allocated to NCI	453.3	2,808.2	277.2	261.0
Total comprehensive income	906.7	5,616.5	553.8	522.0
Dividends paid to NCI	380.2	63.9	194.0	277.4
Cash flows from operating activities	654.5	9,890.2	772.2	688.5
As at 31 December				
Assets:				
Current assets	1,097.8	8,982.7	301.0	255.1
Non-current assets	2,762.7	2,846.8	2,899.9	2,552.5
Liabilities:				
Current liabilities	678.9	709.3	598.8	368.9
Non-current liabilities	—	—	0.1	—
Accumulated non-controlling interest	1,590.8	1,517.9	1,301.0	1,219.4

35. Non-controlling Interests (continued)

Name	Tianjin SDIC Jinneng Electric Power Co., Ltd.			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	4,996.3	3,089.2	2,967.3	3,317.2
Operating profit	319.9	90.9	389.5	614.2
Profit allocated to NCI	115.2	32.7	140.2	221.2
Total comprehensive income	319.9	90.9	389.5	614.2
Dividends paid to NCI	29.5	126.2	199.0	220.1
Cash flows from operating activities	1,592.5	826.2	1,385.7	1,596.8
As at 31 December				
Assets:				
Current assets	1,136.3	888.6	950.4	1,519.4
Non-current assets	13,115.1	13,299.0	13,047.3	9,997.5
Liabilities:				
Current liabilities	1,976.0	1,993.8	3,978.5	2,269.8
Non-current liabilities	8,153.3	8,437.8	613.4	5,772.6
Accumulated non-controlling interest	1,483.9	1,339.4	1,364.0	1,250.9

Name	SDIC Xuancheng Electric Power Co., Ltd.			
Year	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
For the period ended 31 Dec				
Revenue	1,856.6	1,815.0	1,680.2	1,554.1
Operating profit/(loss)	(1.4)	(43.0)	113.7	258.0
Profit/(loss) allocated to NCI	(0.7)	(21.0)	55.7	126.4
Total comprehensive income	(1.4)	(43.0)	113.7	258.0
Dividends paid to NCI	—	51.8	13.2	—
Cash flows from operating activities	225.4	247.4	427.9	671.7
As at 31 December				
Assets:				
Current assets	389.9	409.3	372.6	409.9
Non-current assets	2,644.6	2,782.5	2,934.9	3,148.5
Liabilities:				
Current liabilities	894.3	800.9	520.7	752.9
Non-current liabilities	1,156.1	1,405.3	1,652.7	1,807.3
Accumulated non-controlling interest	482.2	482.9	555.7	463.8

36. Long term loans

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Secured loans	10,705.3	8,972.3	8,275.2	8,127.8
Guaranteed loans	398.1	4,006.3	8,939.6	5,569.9
Unsecured loans	100,600.7	95,908.2	86,320.7	77,934.3
Total	111,704.1	108,886.8	103,535.5	91,632.0

36. Long term loans (continued)

The secured loans above are secured on the following items

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)	2015 RMB (m)
Property, plant and equipment	3,995.0	1,705.9	2,991.5	4,761.9
Accounts receivables	1,513.7	1,070.0	616.3	252.5
Intangibles	1,549.7	1,913.4	2,013.2	2,253.2
Total	7,058.4	4,689.3	5,621.0	7,267.6

37. Long term bonds

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)	2015 RMB (m)
Corporate bonds	2,200.0	3,000.0	3,000.0	1,800.0

Corporate bonds were issued by the Company on 25 March 2014 with a par value of RMB100 each totalling RMB1.8 billion. The bonds have a 5-year term with a fixed annual coupon and nominal interest rate of 5.89%.

Corporate bonds issued by the Company on 27 October 2016, 18 November 2016, with par value of RMB100 each totalling RMB1.2 billion. The bonds have a 5-year term with fixed annual coupon and nominal interest rate of 3.10%, 3.32%, respectively.

38. Long-term payable and lease liabilities

(i) Long-term payable

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)	2015 RMB (m)
Amount due to non-controlling interests	514.6	489.9	520.0	486.8
Total	514.6	489.9	520.0	486.8

The long-term payables are listed below:

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)	2015 RMB (m)
Fujian Electric Power (Hong Kong) Co. Ltd	514.6	489.9	520.1	486.8
Total	514.6	489.9	520.0	486.8

(ii) Lease liabilities

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)	2015 RMB (m)
Lease liabilities	392.5	357.8	1,777.0	2,657.2
Total	392.5	357.8	1,777.0	2,657.2

38. Long-term payable and lease liabilities (continued)

(ii) Lease liabilities (continued)

The lease liabilities consisted of the followings:

	2018		2017		2016		2015	
	RMB (m)		RMB (m)		RMB (m)		RMB (m)	
	Present value of minimum lease payments	Minimum Lease Payments	Present value of minimum lease payments	Minimum Lease Payments	Present value of minimum lease payments	Minimum Lease Payments	Present value of minimum lease payments	Minimum Lease Payments
Within one year	42.0	42.0	1,014.7	1,014.7	889.9	889.9	422.1	422.1
Between one to two years	123.3	123.3	115.5	115.5	597.9	597.9	1,612.2	1,612.2
Between two to five years	141.8	141.8	242.3	242.3	1,179.1	1,179.1	1,045.0	1,045.0
Over five years	127.4	127.4	—	—	—	—	—	—
Less: Future finance charges	—	—	—	—	—	—	—	—
Present value of lease obligations	434.5	434.5	1,372.5	1,372.5	2,666.9	2,666.9	3,079.3	3,079.3
Less: Amount due for settlement within 12 months (shown under current liabilities)	42.0	42.0	1,014.7	1,014.7	889.9	889.9	422.1	422.1

39. Provisions

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
External guarantee	141.0	283.2	426.6	—
Disposal cost	128.3	83.8	84.7	—
Contingent considerations	144.0	145.8	141.3	—
Others	1.9	1.9	0.2	—
Total	415.2	514.7	652.8	—

	External Guarantee	Contingency Consideration	Other	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
At 1 January 2016				
Balance b/f	—	—	—	—
Charged to profit or loss	516.2	—	84.9	601.1
On acquisition	—	141.3	—	141.3
Payments made	(89.6)	—	—	(89.6)
At 1 January 2017	426.6	141.3	84.9	652.8

39. Provisions (continued)

	External Guarantee	Contingency Consideration	Other	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Charged to profit or loss	(17.1)	—	0.9	(16.2)
Payments made	(126.3)	—	—	(126.3)
Foreign exchange rate movements	—	4.4	—	4.4
At 31 December 2017 and 1 January 2018	283.2	145.7	85.8	514.7
Charged to profit or loss	—	—	—	—
Payments made	(142.2)	—	—	(142.2)
Foreign exchange rate movements	—	(1.7)	2.8	1.1
On acquisition	—	—	41.6	41.6
At 31 December 2018	141.0	144.0	130.2	415.2

External guarantee

As approved on the shareholders' meeting of the Company in 2012, the Company provided the credit guarantee of 6-year finance lease of RMB500 million to IBCN Finance Lease Co., Ltd. (hereinafter referred to as "IBCN Finance Lease") for SDIC Qujing Power Generation Co., Ltd. (hereinafter referred to as "Qujing Company", and renamed "Dongyuan Qujing Energy Co., Ltd."). Pursuant to the equity transfer contract of Qujing Company, "the transferee, Dongyuan Coal, shall relieve the guarantee responsibilities of SDIC Power within 180 days after it changes the industrial and commercial registrations. Based on the above guarantee, SDIC Power may have the corporate right of recourse for the subject in future, and Dongyuan Coal and Yunnan Coal Chemical Industry Group Co., Ltd. shall bear the joint liability to guarantee the counter guarantee.

As at December 31, 2018, Qujing Company has not performed the current payment obligation stipulated in the finance lease contract. From 2016 to 2018, the company received the rent paying notice from IBCB Finance Lease. From 2016 to 2018, SDIC Power, as the guarantor of the finance lease contract, has paid the overdue rents totalling RMB357.0m to IBCB Finance Lease. The remaining guarantee payable of RMB141.0m has not been paid as at 31 December 2018. The Company has accrued for the remaining payments in full.

Contingent consideration

See note 48 for details of contingent consideration payable.

40. Deferred income

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Government grants	155.0	174.7	181.3	197.2
Prepaid construction loan	54.6	57.9	61.1	51.4
Others	0.9	1.2	1.2	0.7
	210.5	233.8	243.6	249.3

Government grants represent amounts received by the Group from local government authorities for undertaking approved environmental protection projects.

41. Accounts and notes payable

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Notes payable	422.1	820.2	1,150.3	1,530.6
Accounts payable	4,677.8	4,834.7	5,561.4	3,553.3
Advance receipt	407.4	582.9	256.8	37.1
	5,507.3	6,237.8	6,968.5	5,121.0

42. Other payables

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Salaries payable	252.7	218.3	323.6	338.7
Interest of long-term borrowing	361.4	424.5	387.6	364.3
Debenture interest	147.0	89.0	89.3	83.1
Interest payable of short-term borrowing	17.2	29.7	69.6	67.9
Others	1.8	4.0	—	—
Project fund and security deposit	3,287.8	4,519.4	5,387.6	5,726.1
Reservoir zone fund	1,213.5	969.7	710.5	514.6
Insurance compensation	16.7	118.3	142.6	184.3
Social security fund	19.5	18.3	36.6	27.4
Project purchase payment	27.0	—	—	83.8
Withheld payment	0.9	0.4	0.4	6.6
Special fund	42.1	11.2	14.5	4.2
Others	370.5	654.9	474.0	418.2
Compensation for replacement of coal-fired power by hydropower	—	73.7	192.7	—
	5,758.1	7,131.4	7,829.0	7,819.2

43. Tax payable

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Value-added tax	515.2	369.4	316.8	—
Business tax	—	—	—	5.0
Enterprise income tax	304.0	139.0	205.1	102.6
Personal income tax	79.4	35.1	36.2	31.9
Urban maintenance and construction tax	36.0	20.3	23.3	25.0
House tax	6.8	13.1	7.2	4.7
Education fee surcharge	24.9	15.0	15.1	12.7
Resource tax	89.0	70.2	63.5	39.4
Land use tax	4.7	6.3	4.9	5.5
Others	75.1	64.2	57.9	67.3
Total	1,135.1	732.6	730.0	294.1

44. Short term loans

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Secured loans	175.0	55.0	454.3	462.0
Unsecured loans	5,589.1	4,686.3	7,463.6	7,559.0
Total	5,764.1	4,741.3	7,917.9	8,021.0

45. Short term bonds

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Corporate bonds	1,000.0	1,200.0	4,500.0	3,500.0

Short-term bonds issued by Yalong River Hydropower Development Company, Ltd 18 May, 2018, totalling RMB1.0 billion. The bonds have a 240-day term with fixed annual coupon and nominal interest rate of 4.67%. The company will repay the principal and interest once it matures.

46. Current portion of long-term liabilities

	2018	2017	2016	2015
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Long-term loans due within one year	13,875.5	12,967.7	7,787.2	10,659.1
Long-term bonds due within one year	1,800.0	—	—	—
Lease liabilities due within one year	42.0	1,014.7	889.9	422.1
Deferred income due within one year	26.7	25.1	22.2	19.1
Total	15,744.2	14,007.5	8,699.3	11,100.3

47. Financial instruments and Risk Management

Financial instruments

The Group's financial assets comprise of restricted deposits, cash and cash equivalents, accounts and notes receivable, long terms receivables, fair value through profit and loss and fair value through other comprehensive income instruments.

The group's financial liabilities comprise of accounts and notes payables, other payables, dividends payables, short term loans, short term bonds, current portion of long term liabilities, long term loans, long term bonds, long terms payables and provisions.

All of the above are measured at the amortised basis with the exception of fair value through profit and loss and fair value through other comprehensive income statement instruments.

The Directors considered that the carrying amounts of the Group's financial assets and financial liabilities as reflected in the consolidated statement of financial position approximate their respective fair values given the terms of the arrangements and the relatively stable interest rate environment.

As mentioned above, only the fair value through profit and loss and fair value through other comprehensive income statement instruments are held at fair value.

47. Financial instruments and Risk Management (continued)

Financial instruments (continued)

The total amount of the investments at 31 December 2018 was RMB1033.5m, of which RMB850.4m was the level 1 financial asset being measured using quoted prices (unadjusted) in active markets for identical assets or liabilities that the Group can access at the measurement date.

The remainder of these assets are held at cost being the amount paid for the investment. The Directors considered that as each of the investments remained in construction and were pre-revenue, the cost was the best indicator of the fair value at the balance sheet date.

Risk management

The Group's activities expose itself to a variety of financial risks, such as credit risk, foreign currency risk, liquidity risk and interest rate risk. The Group's overall risk management objective is to establish the risk management policy to minimize these risks without a significant impact on the Group's operations.

Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Group's credit risk is primarily attributed to its cash and cash equivalents, accounts and notes receivable and long terms receivable and the guarantees it has issued (see note 50).

The Group maintains most of its bank deposits and holds notes receivable in several major government-related financial institutions in the PRC and a non-bank financial institution which is a related party of the Group. With strong State support provided to those government-related financial institutions and the holding of directorship in the board of the related party non-bank financial institution, the directors are of the opinion that there is no significant credit risk on such assets.

The long term receivable is mainly from associates. The Group has regular access to financial information of the entity and does not consider such receivable to be a significant credit risk.

With regard to accounts receivables arising from power sales, most of the power plants of the Group sell electricity to their sole customers, being the power grid companies of their respective provinces or regions where the power plants operate. These power plants of the Group communicate with their individual grid companies periodically and believe that adequate allowance for expected credit losses has been made in the consolidated financial information.

The provision for expected credit losses has been made using the below detail:

2018/12/31	**Not past due**	**180-360**	**360-720**	**720-1080**	**>1080**	**Others**	**Total**
	RMB(m)	**RMB(m)**	**RMB(m)**	**RMB(m)**	**RMB(m)**	**RMB(m)**	**RMB(m)**
Expected credit loss rate	0%	5%	10%	30%	90%	6%	—
Estimated total gross carrying amount at default	1,978.7	18.2	13.0	2.2	80.0	3,511.3	5,603.4
Lifetime ECL	—	0.9	1.3	0.6	72.0	198.2	273.0
Total	1,978.7	17.3	11.7	1.6	8.0	3,313.1	5,330.4

47. Financial instruments and Risk Management (continued)

Credit risk (continued)

2017/12/31	Not past due RMB(m)	180-360 RMB(m)	360-720 RMB(m)	720-1080 RMB(m)	>1080 RMB(m)	Others RMB(m)	Total RMB(m)
Expected credit loss rate	0%	5%	10%	30%	99%	8%	—
Estimated total gross carrying amount at default	2,100.3	20.4	8.7	18.0	57.8	1,706.4	3,911.6
Lifetime ECL	—	1.0	0.9	5.4	57.1	137.4	201.8
Total	2,100.3	19.4	7.8	12.6	0.7	1,569.0	3,709.8

2016/12/31	Not past due RMB(m)	180-360 RMB(m)	360-720 RMB(m)	720-1080 RMB(m)	>1080 RMB(m)	Others RMB(m)	Total RMB(m)
Expected credit loss rate	0%	5%	10%	30%	97%	9%	—
Estimated total gross carrying amount at default	1,740.7	4.2	44.4	2.8	124.7	934.3	2,851.1
Lifetime ECL	—	0.2	4.4	0.8	121.4	82.0	208.8
Total	1,740.7	4.0	40.0	2.0	3.3	852.3	2,642.3

To measure expected credit losses, trade and other receivables have been grouped together based on shared credit risk characteristics and the days past due.

The expected loss rates are based on an ageing analysis performed on the receivables as well as historical loss rates. The historical loss rates are adjusted to reflect current and forward looking information that would impact the ability of the customer to pay.

Trade and other receivables are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include the receivable being over five years due.

Expected credit losses are reversed if the customer pays the full balance on which there has been credit losses applied.

Impairment losses on trade and other receivables are presented as impairment losses within operating profit. Subsequent recoveries of amounts previously written off are credited against the same line item.

Others included above are the accounts receivable of New Energy government grants, Chinese government credit is very good but the management takes account of time value to estimate the life time expected credit loss, and the expected credit loss rate is 6%-9%.

At 31 December 2018, accounts and notes receivables due from the top five debtors amounted to RMB3,560m (2017: RMB2,231m, 2016: RMB1,392m), representing 68.0% (2017: 60.2%, 2016: 50.8%) of the total accounts receivables. Except for accounts, the Group has no significant concentrations of credit risk.

Management have not determined to be any expected credit losses on guarantees given apart from where full provision has been made. See note 50 for further details.

47. Financial instruments and Risk Management (continued)

Foreign exchange risk

Foreign exchange risk arises when individual Group entities enter into transactions denominated in a currency other than their functional currency. The Group's policy is, where possible, to allow group entities to settle liabilities denominated in their functional currency with the cash generated from their own operations in that currency. Where group entities have liabilities denominated in a currency other than their functional currency (and have insufficient reserves of that currency to settle them), cash already denominated in that currency will, where possible, be transferred from elsewhere within the Group.

At the year end, the Group's held cash and cash equivalents in the following currencies:

	2018	2017	2,016
	RMB (m)	RMB (m)	RMB (m)
RMB	7,243.5	4,508.7	3,523.9
USD	115.0	228.3	336.6
GBP	111.3	235.4	293.8
EURO	0.2	—	—
	7,470.0	4,972.4	4,154.3

As of 31 December 2018 the Group's net monetary assets/ liabilities by functional currency of the Group's entities were as follow:

	RMB (m)
Currency of monetary asset/(liability)	
RMB	(127,795.3)
USD	(1,456.5)
GBP	(4,137.2)
EURO	0.2
	(133,388.8)

The foreign currency risk of the Group mainly derives from some borrowings and deposits in GBP and USD. The Board has reviewed the RMB/GBP and RMB/USD exchange rate movement for the last two years and consider that a 10% movement would represent the maximum realistic exposure. The impact of such a change would not have a material impact on the reported results and therefore no sensitivity analysis is presented.

Interest rate risk

The Group is mainly exposed to cash flow interest rate risk from long-term loans at variable interest rate. All short term borrowings are at fixed rate. The Directors consider that given the past history of interest rate movements and the economic outlook that it is unlikely that there will be significant increase in interest rates. Should the interest rate increase by 1%, which is the Directors assessment of the highest realistic increase, then the interest charge would increase by RMB1,117.0m.

Liquidity risk

Liquidity risk arises from the Group's management of working capital and the finance charges and principal repayments on its debt instruments. It is the risk that the Group will encounter difficulty in meeting its financial obligations as they fall due.

47. Financial instruments and Risk Management (continued)

Liquidity risk (continued)

The Group's policy is to ensure that it will always have sufficient cash to allow it to meet its liabilities when they become due. The Group seeks to achieve this aim by ensuring that it has sufficient lines of credit and borrowings facilities in order to meet its obligations as they fall due. In addition, the Group maintains relationships with financial institutions and is confident that it has the ability to restructure its facilities and modify the timing of its obligations.

The following table sets out the contractual maturities (representing undiscounted contractual cash-flows) of financial liabilities:

At 31 December 2018	Up to 6 months	Between 6 and 12 months	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
	RMB(m)	RMB(m)	RMB(m)	RMB(m)	RMB(m)
Account payables	928.0	3,749.8	—	—	—
Other payables	794.0	4,964.1	—	—	—
Long term payables and lease liabilities	15.8	26.2	637.9	141.8	127.4
Long term loans	798.2	13,077.3	22,220.5	25,932.3	63,551.3
Short term loans	1,421.6	4,342.5	—	—	—
long term bonds	1,800.0	—	—	2,200.0	—
short term bonds	—	1,000.0	—	—	—
Total	5,757.6	27,159.9	22,858.4	28,274.1	63,678.7

At 31 December 2017	Up to 6 months	Between 6 and 12 months	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
	RMB(m)	RMB(m)	RMB(m)	RMB(m)	RMB(m)
Account payables	930.7	3,904.0	—	—	—
Other payables	795.8	6,335.6	—	—	—
Long term payables and lease liabilities	240.0	774.7	605.4	242.3	—
Long term loans	1,023.0	11,944.7	11,703.1	25,961.6	71,222.1
Short term loans	910.0	3,831.3	—	—	—
long term bonds	—	—	1,800.0	1,200.0	—
short term bonds	1,000.0	200.0	—	—	—
Total	4,899.5	26,990.3	14,108.5	27,403.9	71,222.1

At 31 December 2016	Up to 6 months	Between 6 and 12 months	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
	RMB(m)	RMB(m)	RMB(m)	RMB(m)	RMB(m)
Account payables	674.8	4,886.6	—	—	—
Other payables	41.9	7,787.1	—	—	—
Long term payables and lease liabilities	560.0	329.9	597.9	1,699.1	—
Long term loans	975.6	6,811.6	9,820.6	27,890.9	65,824.0
Short term loans	2,588.7	5,329.2	—	—	—
long term bonds	—	—	—	3,000.0	—
short term bonds	2,500.0	2,000.0	—	—	—
Total	7,341.0	27,144.4	10,418.5	32,590.0	65,824.0

47. Financial instruments and Risk Management (continued)

Liquidity risk (continued)

At 31 December 2015	Up to 6 months	Between 6 and 12 months	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
	RMB(m)	RMB(m)	RMB(m)	RMB(m)	RMB(m)
Account payables	566.3	2,987.0	—	—	—
Other payables	97.6	7,721.6	—	—	—
Long term payables and lease liabilities	70.0	352.1	1,612.2	1,531.8	—
Long term loans	1,624.1	9,035.0	3,936.1	18,969.6	68,726.3
Short term loans	2,316.3	5,704.7	—	—	—
long term bonds	—	—	—	1,800.0	—
short term bonds	2,500.0	1,000.0	—	—	—
Total	7,174.3	26,800.4	5,548.3	22,301.4	68,726.3

Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern and to maximise the returns to the shareholders through the optimisation of the capital structure.

The Group sets the amount of capital in proportion to risk. The Group manages the capital structure and makes adjustments to it in the light of changes in economic conditions and the risk characteristics of the underlying assets. In order to maintain or adjust the capital structure, the Group may adjust the payment of dividends, issue new shares, raise new debts or sell assets to reduce debts.

The Group monitors capital on the basis of the assets-to-liabilities ratio. This ratio is calculated as total liabilities divided by total assets. The assets-to-liabilities ratio of the Group as at 31 December 2018 was 68.19% (2017: 70.85%, 2016: 72.10%).

Taking into consideration of the Group's expected operating cash flows, the available banking facilities and their past experience in refinancing short-term borrowings, the directors believe the Group can meet their current obligations when they fall due.

48. Business combinations completed in current and prior periods

(i) Red Rock Power Limited

On May 20, 2016, the Group acquired 100% of the equity Red Rock Power Limited with 137.1 million pounds. This company also holds 100% equity of Inch Cape Offshore Limited which is engaged in the offshore wind power field development, and 100% equity of Beatrice Windfarm Limited. The cost for acquisition of the equity listed in the table below is converted at 8.5094, the RMB/GBP converted exchange rate at the end of the reporting period.

48. Business combinations completed in current and prior periods (continued)

(i) Red Rock Power Limited (continued)

Details of the fair value of identifiable assets and liabilities acquired, purchase consideration and goodwill on acquisition are as follows:

	Fair value
	RMB(m)
Property, plant and equipment	196.3
Intangibles	2.9
Investment in associate	987.1
Receivables	5.2
Cash	341.8
Borrowings	(714.7)
Payables	(48.2)
Total net assets	**770.4**

	Fair value
	RMB(m)
Fair value of consideration paid	
Cash	1,025.7
Contingent consideration	141.3
	1,167.0
Goodwill (note 17)	396.5

Acquisition costs of RMB1.8m arose as a result of the transaction. These have been recognised as part of administrative expenses in the statement of comprehensive income.

The main factor leading to the recognition of goodwill was the presence of certain intangible assets, such as the assembled workforce of the acquired entity, which do not qualify for separate recognition.

Red Rock Power Limited contributed RMB1.0m to group revenues and RMB(82.5)m to group profit between the date of acquisition and 31 December 2016. If the acquisition had occurred on 1 January 2016, Red Rock Power Limited would have contributed RMB1.1m to group revenues and RMB(33.3)m to group profit for the three years ended 31 December 2016.

(ii) Yunnan Metallurgical New Energy Co., Ltd.

On 5 July 2018, the Company acquired 90% equity of Yunnan Metallurgy New Energy Co., Ltd. at the price of RMB540m, and consolidates Yunnan Metallurgy New Energy as a subsidiary.

48. Business combinations completed in current and prior periods (continued)

(ii) Yunnan Metallurgical New Energy Co., Ltd. (continued)

Details of the fair value of identifiable assets and liabilities acquired, purchase consideration and goodwill on acquisition are as follows:

	Fair value
	RMB(m)
Property, plant and equipment	1,992.7
Intangibles	3.1
Other non-current assets	10.3
Receivables	598.7
Prepayments	1.0
Cash	29.3
Other current assets	138.4
Borrowings	(2,011.6)
Payables	(149.4)
Total net assets	**612.5**
Fair value of consideration paid	
Cash	540.0

Acquisition costs of RMB1.2m arose as a result of the transaction. These have been recognised as part of administrative expenses in the statement of comprehensive income.

The main factor leading to the recognition of other income of RMB11.3m was the Fair value of consideration paid was lower than the Fair value of acquired net identifiable asset.

Yunnan Metallurgy New Energy contributed RMB137.5m to group revenues and RMB27.3m to group profit between the date of acquisition and 31 December 2018. If the acquisition had occurred on 1 January 2018, Yunnan Metallurgy New Energy would have contributed RMB297.1m to group revenues and RMB33.3m to group profit for the year ended 31 December 2018.

(iii) Afton Wind Farm Limited

On 10 October 2018, Red Rock Power Limited, a subsidiary of the Company, acquired 100% equity of Afton Wind Farm Limited at the price of 49.17 million pounds. Afton Wind Farm Limited also held 100% equity of Afton Wind Farm (Holdings) Limited engaged in offshore wind farm management and 100% equity of Afton Wind Farm (BMO) Limited. In the below table, the equity acquiring cost is converted at the exchange rate 8.6762 between RMB and GBP at end of report period.

48. Business combinations completed in current and prior periods (continued)

(iii) Afton Wind Farm Limited (continued)

Details of the fair value of identifiable assets and liabilities acquired, purchase consideration and goodwill on acquisition are as follows:

	Fair value
	RMB(m)
Property, plant and equipment	733.3
Intangibles	312.3
Receivables	45.1
Prepayments	0.8
Cash	0.7
Borrowings	(624.7)
Payables	(40.9)
Total net assets	**426.6**
Fair value of consideration paid	
Cash	426.6

The main factor leading to none of the recognition of goodwill was the Fair value of consideration paid and Fair value of acquired net identifiable asset are the same.

Afton Wind Farm Limited contributed RMB34.3m to group revenues and RMB2.6m to group profit between the date of acquisition and 31 December 2018. If the acquisition had occurred on 1 January 2018, Afton Wind Farm Limited would have contributed RMB63.7m to group revenues and RMB5.7m to group profit for the year ended 31 December 2018.

(iv) Baiyin Yellow River Hydropower Co., Ltd.

On 30 November 2018, SDIC Xiaosanxia, a subsidiary of the Company received 100.00% equity of Baiyin Yellow River Hydropower Co., Ltd. free of charge, and undertook all the assets and liabilities of Yellow River Company. The Company also had 46.56% equity of Baiyin Daxia Electric Power Co., Ltd.

Details of the fair value of identifiable assets and liabilities acquired, purchase consideration and goodwill on acquisition are as follows:

	Fair value
	RMB(m)
Property, plant and equipment	7.0
Other non-current assets	0.9
Receivables	11.8
Prepayments	50.1
Cash	17.4
Other current assets	0.8
Payables	(15.9)
Total net assets	**72.1**
Fair value of consideration paid	
Cash	23.2

The main factor leading to the recognition of other income of RMB12.3m was the Fair value of consideration paid was lower than the Fair value of acquired net identifiable asset.

48. Business combinations completed in current and prior periods (continued)

(iv) Baiyin Yellow River Hydropower Co., Ltd. (continued)

Baiyin Yellow River Hydropower contributed RMB2.3m to group revenues and RMB3.4m to group profit between the date of acquisition and 31 December 2018. If the acquisition had occurred on 1 January 2018, Baiyin Yellow River Hydropower would have contributed RMB28.5m to group revenues and RMB17.1 m to group profit for the year ended 31 December 2018.

49. Parent company and related party transactions

In the opinion of the Directors, State Development and Investment Group Co Limited, a company incorporated in the PRC, is the ultimate parent company of the Group. The final controlling party is the State-owned Assets Supervision and Administration Commission of the State Council.

Related party transactions were made on terms equivalent to those that prevail in arm's length transactions.

Significant transactions with government-related entities

Government-related entities, other than entities under SDIC Power which is a state-owned enterprise and its subsidiaries, directly or indirectly controlled by the Central People's Government of the PRC ("Government-Related Entities") are also regarded as related parties of the Group.

For the purpose of the related party transactions disclosure, the Group has established procedures for determination, to the extent possible, of the identification of the ownership structure of its customers and suppliers as to whether they are Government-Related Entities to ensure the adequacy of disclosure for all material related party transactions given that many Government-Related Entities have multi-layered corporate structures and the ownership structures change over time as a result of transfers and privatisation programs.

During the years ended 31 December 2018, 2017 and 2016, the Group sold substantially all of its electricity to local government-related power grid companies.

The Group maintained most of its bank deposits in government-related financial institutions while lenders of most of the Group's loans are also government-related financial institutions, associated with the respective interest income or interest expense incurred.

During the years ended 31 December 2018, 2017 and 2016, other collectively significant transactions with Government-Related Entities also included purchases of fuel and property, plant and equipment.

At 31 December 2018, the long-term loans (including current portion) and short-term loans payable to Government-Related Entities included in long-term loans (including current portion) and short-term loans amounted to RMB125,579.6m (2017: RMB121,854.5m, 2016: RMB111,322.7m) and RMB5,764.1m (2017: RMB4,641.3m, 2016: RMB7,917.9m) respectively.

The balances with Government-Related Entities also included substantially all the accounts receivables of local government-related power grid companies, most of the bank deposits which placed in government-related financial institutions as well as accounts payables and accrued liabilities arising

49. Parent company and related party transactions (continued)

Significant transactions with government-related entities (continued)

from the purchases of coal and property, plant and equipment. These balances are unsecured, interest-free and due within 12 months.

(i) Related transactions of purchase and sell of goods and rendering and receiving of service

Details of purchase of goods/ rendering of service RMB ('000):

Related party	Content of related transaction	2018	2017	2016
SDIC Meizhou Bay Port Co., Ltd.	Harbour handling charge	138,177.1	78,230.9	9,314.2
SDIC Qinzhou Harbour Co., Ltd.	Harbour handling charge	16,438.3	—	—
China National Investment Consultation Co., Ltd.	Supervision and survey service charge	3,377.4	1,726.4	1,820.8
China Electronic Engineering Design Institute Co., Ltd.	Consulting fee	1,027.2	806.6	2,109.9
SDIC Jingmin (Fujian) Industry and Trade Co.,Ltd.	Coal procurement	—	—	278,582.0
SDIC Xinji Energy Co., Ltd.	Coal procurement	—	—	379,732.7
Xinjiang Yili Lineng Coal Co., Ltd.	Coal procurement	—	—	20,240.0
Yunnan Dachao Industrial Co., Ltd.	Coal procurement	—	—	11,781.2
SDIC Shanxi Coal Transportation and Marketing Co., Ltd.	Coal procurement	—	—	46,062.3
SDIC Human Resource Service Co., Ltd.	Consigned management charge	83.10	—	—

Details of sell of goods/ rending of service RMB ('000):

Related party	Content of related transaction	2018	2017	2016
Beatrice Offshore Windfarm Limited	Interest income	13,346.3	26,082.5	—
SDIC Qinzhou Harbour Co., Ltd.	Electric charge	3,260.0	1,548.9	—
State Development & Investment Group Co., Ltd.	Dwelling charge	11.9	—	—
Xiamen Haicang Thermal Energy Investment Co., Ltd.	Network charge	10,249.7	—	—

(ii) Related entrusted management/ contracting and consigned management/ outsourcing

List of entrusted management/ contracting of the Company RMB ('000):

31-Dec-18

Name of entrusting party/ outsourcing party	Name of trustee/ contractor	Name of entrusted/ contracted asset	Start date of entrusting/ contracting	End date of entrusting/ contracting	Reference for pricing of entrusting/ contracting income	Entrusting/ contracting income confirmed in current period
State Development & Investment Group Co., Ltd.	SDIC Power Holdings Co., Ltd.	Equity trusteeship	2018/1/1	2018/12/31	Agreement	188.7

Description of related entrusting/ contracting

Pursuant to Articles 4.2 and 4.3 of Entrusted Management Agreement between State Development & Investment Group Co., Ltd. and SDIC Huajing Electric Power Holding Co., Ltd.

49. Parent company and related party transactions (continued)

(ii) Related entrusted management/ contracting and consigned management/ outsourcing (continued)

Description of related entrusting/ contracting (continued)

signed on June 4, 2009 and supplementary agreement signed in 2013, State Development & Investment Group Co., Ltd. entrusts the Company to manage 10% of equity of Green Coal Power Co., Ltd. The trusteeship fee was confirmed and received is RMB188,679.20 during this year.

31-Dec-17

Name of entrusting party/ outsourcing party	Name of trustee/ contractor	Name of entrusted/ contracted asset	Start date of entrusting/ contracting	End date of entrusting/ contracting	Reference for pricing of entrusting/ contracting income	Entrusting/ contracting income confirmed in current period
State Development & Investment Group Co., Ltd.	SDIC Power Holdings Co., Ltd.	Equity trusteeship	2017/1/1	2017/12/31	Agreement	200.0
SDIC Investment Management Corporation	SDIC Power Holdings Co., Ltd.	Equity trusteeship	2017/1/1	2017/12/31	Agreement	26.3

Pursuant to Articles 4.2 and 4.3 of Entrusted Management Agreement between State Development & Investment Group Co., Ltd. and SDIC Huajing Electric Power Holding Co., Ltd. signed on June 4, 2009 and supplementary agreement signed in 2013, State Development & Investment Group Co., Ltd. entrusts the Company to manage 10% of equity of Green Coal Power Co., Ltd. The trusteeship fee was confirmed and received RMB200,000.00 during this year.

On June 4, 2009, the Company signed the Entrusted Management Agreement with the SDIC Investment Management Co., Ltd. According to the agreement, the Company was authorised to manage 10% of the equity of Beijing Guoli Energy Investment Co., Ltd. in 2013, and the annual trusteeship fee is RMB200,000.00. The 10% equity of Beijing Guoli Energy Investment Co., Ltd. was transferred on February 17, 2017. The trusteeship fee was confirmed and received this year is RMB26,301.37.

31-Dec-16

Nil

49. Parent company and related party transactions (continued)

(iii) Related lease

The Company acts as leasee RMB ('000):

Name of lessor	Category of leased asset	31-Dec-18	31-Dec-17	31-Dec-16
SDIC Finance Lease Co., Ltd.	Machine and equipment	128,573.3	165,658.0	195,456.8
Total		128,573.3	165,658.0	195,456.8

(iv) Related guarantee

The Company acts as guarantor:

2018/12/31 RMB ('000)

Guarantee	Amount of guarantee	Start date of guarantee	End date of guarantee	If the guarantee completed
SDIC Golmud Photovoltaic Power Generation Co., Ltd.	123,878.2	2010/8/27	2025/8/27	No
SDIC Dunhuang Photovoltaic Power Generation Co., Ltd.	185,020.0	2010/8/19	2030/11/23	No
SDIC Shizuishan Photovoltaic Power Generation Co., Ltd.	134,940.0	2010/10/20	2028/12/6	No
Beatrice Wind Limited	1,093,698.3	2016/5/16	2019/9/20	No
Inch Cape Offshore Limited	43,381.0	2016/5/11	2064/10/10	No
Beatrice Offshore Windfarm Limited	3,363.6	2016/8/20	2021/12/31	No
Jaderock Investment Singapore Pte Ltd.	1,647,168.0	2016/5/27	2019/5/27	No
Yunnan Metallurgy New Energy Co., Ltd.	584,000.0	2018/11/2	2030/11/26	No
Yunnan Metallurgy New Energy Co., Ltd.	538,761.2	2018/11/2	2030/11/26	No

2017/12/31 RMB ('000)

Guarantee	Amount of guarantee	Start date of guarantee	End date of guarantee	If the guarantee completed
SDIC Golmud Photovoltaic Power Generation Co., Ltd.	139,974.6	2010/8/27	2025/8/27	No
SDIC Dunhuang Photovoltaic Power Generation Co., Ltd.	198,410.0	2010/8/19	2030/11/23	No
SDIC Shizuishan Photovoltaic Power Generation Co., Ltd.	147,880.0	2010/10/20	2028/12/6	No
Beatrice Wind Limited	2,328,753.7	2016/5/16	2019/9/20	No
Inch Cape Offshore Limited	43,896.0	2016/5/11	2064/10/10	No
Beatrice Offshore Windfarm Limited	3,403.5	2016/8/20	2021/12/31	No
Meteorite investment	1,568,208.0	2016/5/27	2019/5/27	No
Lesteri Listrik Pte. Ltd.	606,736.5	2016/5/31	2017/4/10	No

49. Parent company and related party transactions (continued)

(iv) Related guarantee (continued)

The Company acts as guarantor: (continued)

2016/12/31 RMB ('000)

Guarantee	Amount of guarantee	Start date of guarantee	End date of guarantee	If the guarantee completed
SDIC Golmud Photovoltaic Power Generation Co., Ltd.	158,622.6	2010/8/27	2025/8/27	No
SDIC Dunhuang Photovoltaic Power Generation Co., Ltd.	207,260.0	2010/8/19	2030/11/23	No
SDIC Shizuishan Photovoltaic Power Generation Co., Ltd.	152,020.0	2010/10/20	2028/12/6	No
Beatrice Wind Limited	2,328,753.7	2016/5/16	2019/9/20	No
Redrock Investment Limited	1,786,974.0	2016/5/17	2019/5/17	No
Inch Cape Offshore Limited	44,840.8	2016/5/11	2064/10/10	No
Beatrice Offshore Windfarm Limited	3,298.9	2015/2/20	2021/12/31	No
Jaderock Investment Singapore Pte. Ltd.	1,664,880.0	2016/5/27	2019/5/27	No
Lesteri Listrik Pte. Ltd.	817,553.8	2016/5/31	2017/4/10	No

The subsidiary of the Company acts as guarantor:

2018/12/31 RMB ('000)

Guarantee	Amount of guarantee	Start date of guarantee	End date of guarantee	If the guarantee completed
PT. Lesteri Banten Energi	832,250.2	2016/6/1	2029/12/31	No

2017/12/31 RMB ('000)

Guarantee	Amount of guarantee	Start date of guarantee	End date of guarantee	If the guarantee completed
PT. Lesteri Banten Energi	792,354.7	2016/6/1	2029/12/31	No

2016/12/31 RMB ('000)

Guarantee	Amount of guarantee	Start date of guarantee	End date of guarantee	If the guarantee completed
PT. Lesteri Banten Energi	841,199.3	2016/6/1	2029/12/31	No

The Company acts as guarantee:

2018/12/31 RMB ('000)

Guarantor	Amount of guarantee	Start date of guarantee	End date of guarantee	If the guarantee completed
State Development & Investment Group Co., Ltd.	2,000,000.0	2012/5/4	2019/5/3	No

2017/12/31 RMB ('000)

Guarantor	Amount of guarantee	Start date of guarantee	End date of guarantee	If the guarantee completed
State Development & Investment Group Co., Ltd.	5,000,000.0	2012/5/4	2019/5/3	No

49. Parent company and related party transactions (continued)

(iv) Related guarantee (continued)

The Company acts as guarantee: (continued)

2016/12/31 (RMB ('000)

Guarantor	Amount of guarantee	Start date of guarantee	End date of guarantee	If the guarantee completed
State Development & Investment Group Co., Ltd.	5,000,000.0	2012/5/4	2019/5/3	No

(v) Borrowings of related parties

2018/12/31 RMB ('000)

Related party	Amount of borrowing	State date	End date	Description
Borrowings:				
State Development & Investment Group Co., Ltd.	204,235.0	2008/7/25	2026/5/10	Long-term borrowing
State Development & Investment Group Co., Ltd.	1,054,490.0	2017/11/13	2020/11/13	Long-term borrowing
State Development & Investment Group Co., Ltd.	520,000.0	2018/6/26	2021/6/26	Long-term borrowing
State Development & Investment Group Co., Ltd.	151,980.0	2018/9/14	2021/9/14	Long-term borrowing
State Development & Investment Group Co., Ltd.	351,010.0	2018/9/29	2021/9/29	Long-term borrowing
State Development & Investment Group Co., Ltd.	7,130.0	2018/11/30	2021/11/30	Long-term borrowing
State Development & Investment Group Co., Ltd.	10,710.0	2016/3/15	2019/3/15	Long-term borrowing
State Development & Investment Group Co., Ltd.	117,520.0	2016/3/22	2019/3/22	Long-term borrowing
State Development & Investment Group Co., Ltd.	1,280,600.0	2016/8/26	2019/8/26	Long-term borrowing
SDIC Finance Co., Ltd.	11,500.0	2018/2/12	2019/2/12	Short-term borrowing
SDIC Finance Co., Ltd.	2,000.0	2018/2/12	2019/2/12	Short-term borrowing
SDIC Finance Co., Ltd.	14,000.0	2018/3/15	2019/3/15	Short-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2018/5/16	2019/5/16	Short-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2018/5/23	2019/5/23	Short-term borrowing
SDIC Finance Co., Ltd.	50,000.0	2018/6/19	2019/6/18	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2018/8/16	2019/8/16	Short-term borrowing
SDIC Finance Co., Ltd.	56,790.0	2018/8/24	2019/8/24	Short-term borrowing
SDIC Finance Co., Ltd.	25,000.0	2018/8/24	2019/8/24	Short-term borrowing
SDIC Finance Co., Ltd.	15,500.0	2018/10/10	2019/10/10	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2018/10/17	2019/10/16	Short-term borrowing
SDIC Finance Co., Ltd.	24,070.0	2018/11/2	2019/11/2	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2018/11/15	2019/11/14	Short-term borrowing
SDIC Finance Co., Ltd.	25,000.0	2018/11/20	2019/5/19	Short-term borrowing
SDIC Finance Co., Ltd.	28,000.0	2018/11/20	2019/11/20	Short-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/11/20	2019/11/20	Short-term borrowing
SDIC Finance Co., Ltd.	105,500.0	2018/11/29	2019/11/29	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2018/12/7	2019/12/7	Short-term borrowing

49. Parent company and related party transactions (continued)

(v) Borrowings of related parties (continued)

2018/12/31 RMB (‘000) (continued)

Related party	Amount of borrowing	State date	End date	Description
SDIC Finance Co., Ltd.	16,000.0	2018/12/7	2019/12/7	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2018/12/10	2019/12/9	Short-term borrowing
SDIC Finance Co., Ltd.	35,000.0	2018/12/12	2019/12/12	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2018/12/19	2019/12/19	Short-term borrowing
SDIC Finance Co., Ltd.	60,000.0	2018/12/20	2019/12/19	Short-term borrowing
SDIC Finance Co., Ltd.	85,000.0	2009/4/24	2024/6/15	Long-term borrowing
SDIC Finance Co., Ltd.	9,580.0	2010/8/19	2025/8/18	Long-term borrowing
SDIC Finance Co., Ltd.	110,090.0	2010/8/23	2025/8/23	Long-term borrowing
SDIC Finance Co., Ltd.	19,500.0	2010/8/27	2024/11/25	Long-term borrowing
SDIC Finance Co., Ltd.	668,500.0	2010/10/8	2035/10/7	Long-term borrowing
SDIC Finance Co., Ltd.	16,960.0	2010/10/20	2025/10/20	Long-term borrowing
SDIC Finance Co., Ltd.	94,825.0	2012/9/11	2030/9/10	Long-term borrowing
SDIC Finance Co., Ltd.	15,000.0	2013/7/2	2023/6/30	Long-term borrowing
SDIC Finance Co., Ltd.	9,000.0	2013/7/2	2023/6/30	Long-term borrowing
SDIC Finance Co., Ltd.	90,542.5	2013/10/25	2027/10/25	Long-term borrowing
SDIC Finance Co., Ltd.	60,000.0	2014/7/23	2028/7/2	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2015/4/20	2035/4/19	Long-term borrowing
SDIC Finance Co., Ltd.	17,730.0	2016/8/10	2031/6/13	Long-term borrowing
SDIC Finance Co., Ltd.	560,000.0	2016/10/24	2021/10/23	Long-term borrowing
SDIC Finance Co., Ltd.	5,089.3	2016/12/19	2031/12/16	Long-term borrowing
SDIC Finance Co., Ltd.	21,250.0	2016/12/27	2030/12/27	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/2/27	2020/2/27	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/3/6	2020/3/6	Long-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/3/15	2020/3/15	Long-term borrowing
SDIC Finance Co., Ltd.	40,000.0	2017/3/15	2020/3/14	Long-term borrowing
SDIC Finance Co., Ltd.	11,000.0	2017/3/20	2020/3/20	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/3/31	2020/3/31	Long-term borrowing
SDIC Finance Co., Ltd.	19,800.0	2017/4/27	2020/4/27	Long-term borrowing
SDIC Finance Co., Ltd.	800,000.0	2017/5/10	2022/5/9	Long-term borrowing
SDIC Finance Co., Ltd.	45,000.0	2017/5/15	2020/5/15	Long-term borrowing
SDIC Finance Co., Ltd.	500,000.0	2017/6/2	2020/6/2	Long-term borrowing
SDIC Finance Co., Ltd.	1,962.5	2017/6/7	2032/6/7	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/6/16	2020/4/27	Long-term borrowing
SDIC Finance Co., Ltd.	6,000.0	2017/6/20	2020/6/20	Long-term borrowing
SDIC Finance Co., Ltd.	300,000.0	2017/6/26	2023/6/26	Long-term borrowing
SDIC Finance Co., Ltd.	16,750.0	2017/7/28	2032/6/27	Long-term borrowing
SDIC Finance Co., Ltd.	100,000.0	2017/8/21	2020/8/21	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/9/15	2020/5/15	Long-term borrowing
SDIC Finance Co., Ltd.	11,000.0	2017/9/18	2020/9/18	Long-term borrowing
SDIC Finance Co., Ltd.	300,000.0	2017/9/19	2020/9/19	Long-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/10/17	2020/10/17	Long-term borrowing
SDIC Finance Co., Ltd.	40,000.0	2017/11/1	2020/11/1	Long-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/11/15	2020/11/15	Long-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2017/11/15	2020/11/15	Long-term borrowing
SDIC Finance Co., Ltd.	2,000.0	2017/11/16	2020/11/16	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/11/28	2020/11/28	Long-term borrowing
SDIC Finance Co., Ltd.	50,000.0	2017/12/5	2020/12/5	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/12/18	2020/12/18	Long-term borrowing

49. Parent company and related party transactions (continued)

(v) Borrowings of related parties (continued)

2018/12/31 RMB ('000) (continued)

Related party	Amount of borrowing	State date	End date	Description
SDIC Finance Co., Ltd.	105,000.0	2017/12/19	2020/12/19	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/1/15	2021/6/14	Long-term borrowing
SDIC Finance Co., Ltd.	1,000.0	2018/1/24	2021/1/24	Long-term borrowing
SDIC Finance Co., Ltd.	9,800.0	2018/2/7	2021/2/7	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/2/7	2021/2/7	Long-term borrowing
SDIC Finance Co., Ltd.	7,500.0	2018/2/12	2021/2/12	Long-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2018/2/12	2032/2/11	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2018/2/13	2021/2/13	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/2/23	2021/2/23	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/3/13	2021/3/13	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/3/13	2021/3/13	Long-term borrowing
SDIC Finance Co., Ltd.	15,000.0	2018/3/13	2021/3/13	Long-term borrowing
SDIC Finance Co., Ltd.	1,000.0	2018/3/19	2021/3/19	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/3/19	2032/3/18	Long-term borrowing
SDIC Finance Co., Ltd.	6,000.0	2018/3/19	2021/3/19	Long-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2018/3/19	2021/3/19	Long-term borrowing
SDIC Finance Co., Ltd.	8,000.0	2018/4/2	2021/4/2	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/4/18	2021/4/18	Long-term borrowing
SDIC Finance Co., Ltd.	27,900.0	2018/4/25	2021/4/25	Long-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2018/5/9	2021/5/9	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/5/10	2021/5/10	Long-term borrowing
SDIC Finance Co., Ltd.	4,000.0	2018/5/14	2021/5/14	Long-term borrowing
SDIC Finance Co., Ltd.	9,000.0	2018/5/15	2021/5/15	Long-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2018/5/15	2021/5/15	Long-term borrowing
SDIC Finance Co., Ltd.	15,000.0	2018/5/16	2021/5/16	Long-term borrowing
SDIC Finance Co., Ltd.	5,500.0	2018/5/17	2021/5/17	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/5/18	2021/5/18	Long-term borrowing
SDIC Finance Co., Ltd.	1,500.0	2018/5/18	2021/5/18	Long-term borrowing
SDIC Finance Co., Ltd.	11,500.0	2018/5/18	2021/5/18	Long-term borrowing
SDIC Finance Co., Ltd.	12,000.0	2018/5/18	2021/5/18	Long-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2018/6/6	2021/6/6	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2018/6/8	2021/6/8	Long-term borrowing
SDIC Finance Co., Ltd.	4,000.0	2018/6/12	2021/6/12	Long-term borrowing
SDIC Finance Co., Ltd.	2,000.0	2018/6/12	2021/6/12	Long-term borrowing
SDIC Finance Co., Ltd.	2,000.0	2018/6/12	2021/6/12	Long-term borrowing
SDIC Finance Co., Ltd.	9,000.0	2018/6/13	2021/6/13	Long-term borrowing
SDIC Finance Co., Ltd.	4,000.0	2018/6/13	2021/6/13	Long-term borrowing
SDIC Finance Co., Ltd.	8,000.0	2018/6/14	2021/6/14	Long-term borrowing
SDIC Finance Co., Ltd.	4,000.0	2018/6/14	2021/6/14	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/6/15	2021/6/15	Long-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2018/6/15	2021/6/15	Long-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2018/6/15	2021/6/15	Long-term borrowing
SDIC Finance Co., Ltd.	37,000.0	2018/8/9	2021/8/9	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/8/16	2021/8/16	Long-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2018/8/30	2021/8/30	Long-term borrowing
SDIC Finance Co., Ltd.	16,000.0	2018/9/7	2021/9/7	Long-term borrowing
SDIC Finance Co., Ltd.	15,000.0	2018/9/12	2021/9/12	Long-term borrowing
SDIC Finance Co., Ltd.	13,000.0	2018/9/12	2021/9/12	Long-term borrowing

49. Parent company and related party transactions (continued)

(v) Borrowings of related parties (continued)

2018/12/31 RMB (‘000) (continued)

Related party	Amount of borrowing	State date	End date	Description
SDIC Finance Co., Ltd.	4,000.0	2018/9/14	2021/9/14	Long-term borrowing
SDIC Finance Co., Ltd.	4,500.0	2018/9/17	2021/9/16	Long-term borrowing
SDIC Finance Co., Ltd.	9,500.0	2018/9/18	2021/9/18	Long-term borrowing
SDIC Finance Co., Ltd.	15,000.0	2018/10/15	2032/10/14	Long-term borrowing
SDIC Finance Co., Ltd.	8,000.0	2018/10/17	2021/10/16	Long-term borrowing
SDIC Finance Co., Ltd.	6,550.0	2018/10/18	2032/10/17	Long-term borrowing
SDIC Finance Co., Ltd.	2,450.9	2018/10/18	2032/10/17	Long-term borrowing
SDIC Finance Co., Ltd.	7,000.0	2018/11/19	2021/11/19	Long-term borrowing
SDIC Finance Co., Ltd.	8,150.0	2018/12/12	2033/12/12	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2018/12/14	2021/12/14	Long-term borrowing
SDIC Finance Co., Ltd.	140,000.0	2016/4/12	2019/8/2	Long-term borrowing
SDIC Finance Co., Ltd.	19,600.0	2016/9/23	2019/9/23	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2016/11/24	2019/11/24	Long-term borrowing
SDIC Finance Co., Ltd.	9,000.0	2016/12/20	2019/12/20	Long-term borrowing
Rongshi International Holding Co., Ltd.	520,572.0	2018/3/19	2019/3/19	Short-term borrowing
Rongshi International Holding Co., Ltd.	34,316.0	2018/8/16	2019/8/15	Short-term borrowing
Rongshi International Holding Co., Ltd.	1,822,002.0	2017/8/14	2022/4/20	Long-term borrowing
Rongshi International Holding Co., Ltd.	589,981.6	2018/3/19	2021/3/19	Long-term borrowing
Rongshi International Holding Co., Ltd.	1,074,130.9	2018/7/23	2021/7/23	Long-term borrowing
China National Investment and Guaranty Corporation	247,820.0	2017/12/14	2020/12/11	Long-term borrowing
China National Investment Consultation Co., Ltd.	8,000.0	2018/8/23	2019/8/23	Short-term borrowing

2017/12/31 RMB (‘000)

Related party	Amount of borrowing	State date	End date	Description
Borrowings:				
SDIC Trust Co., Ltd.	237,835.0	2008/7/25	2026/5/10	Long-term borrowing
State Development & Investment Group Co., Ltd.	520,000.0	2015/6/15	2018/6/15	Long-term borrowing
State Development & Investment Group Co., Ltd.	151,980.0	2015/9/15	2018/9/15	Long-term borrowing
State Development & Investment Group Co., Ltd.	351,010.0	2015/9/29	2018/9/29	Long-term borrowing
State Development & Investment Group Co., Ltd.	117,520.0	2016/3/22	2019/3/22	Long-term borrowing
State Development & Investment Group Co., Ltd.	1,280,600.0	2016/8/26	2019/8/26	Long-term borrowing
State Development & Investment Group Co., Ltd.	10,710.0	2016/3/15	2019/3/15	Long-term borrowing
State Development & Investment Group Co., Ltd.	1,054,490.0	2017/11/13	2020/11/13	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/1/18	2018/1/18	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/1/19	2018/1/19	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2017/1/20	2018/1/19	Short-term borrowing

49. Parent company and related party transactions (continued)

(v) Borrowings of related parties (continued)

2017/12/31 RMB ('000) (continued)

Related party	Amount of borrowing	State date	End date	Description
SDIC Finance Co., Ltd.	13,000.0	2017/1/25	2018/1/25	Short-term borrowing
SDIC Finance Co., Ltd.	60,000.0	2017/2/22	2018/2/22	Short-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/2/24	2018/2/24	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/3/14	2018/3/14	Short-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/3/15	2018/3/15	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/3/15	2018/3/15	Short-term borrowing
SDIC Finance Co., Ltd.	7,000.0	2017/3/16	2018/3/16	Short-term borrowing
SDIC Finance Co., Ltd.	8,000.0	2017/3/16	2018/3/16	Short-term borrowing
SDIC Finance Co., Ltd.	27,000.0	2017/3/16	2018/3/15	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/3/17	2018/3/17	Short-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2017/3/17	2018/3/17	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2017/3/22	2018/3/21	Short-term borrowing
SDIC Finance Co., Ltd.	35,000.0	2017/4/12	2018/4/11	Short-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/4/19	2018/4/19	Short-term borrowing
SDIC Finance Co., Ltd.	500,000.0	2017/4/26	2018/4/26	Short-term borrowing
SDIC Finance Co., Ltd.	40,000.0	2017/4/27	2018/4/27	Short-term borrowing
SDIC Finance Co., Ltd.	40,000.0	2017/4/27	2018/4/27	Short-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2017/5/16	2018/5/16	Short-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/5/17	2018/5/17	Short-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2017/5/23	2018/5/23	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2017/5/24	2018/5/23	Short-term borrowing
SDIC Finance Co., Ltd.	6,000.0	2017/5/24	2018/5/24	Short-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/6/13	2018/6/13	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/6/15	2018/6/15	Short-term borrowing
SDIC Finance Co., Ltd.	100,000.0	2017/6/19	2018/6/18	Short-term borrowing
SDIC Finance Co., Ltd.	2,000.0	2017/6/19	2018/6/19	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/6/20	2018/6/20	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2017/7/13	2018/7/13	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2017/7/14	2018/7/14	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/8/9	2018/8/9	Short-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2017/8/23	2018/8/23	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/9/14	2018/9/14	Short-term borrowing
SDIC Finance Co., Ltd.	7,500.0	2017/9/19	2018/9/19	Short-term borrowing
SDIC Finance Co., Ltd.	2,000.0	2017/9/19	2018/9/19	Short-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/10/9	2018/10/9	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/10/11	2018/10/11	Short-term borrowing
SDIC Finance Co., Ltd.	43,500.0	2017/11/22	2018/11/22	Short-term borrowing
SDIC Finance Co., Ltd.	2,000.0	2017/11/22	2018/11/22	Short-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/11/22	2018/11/22	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/12/6	2018/12/5	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/12/11	2018/12/11	Short-term borrowing
SDIC Finance Co., Ltd.	16,000.0	2017/12/13	2018/12/13	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2017/12/18	2018/12/18	Short-term borrowing
SDIC Finance Co., Ltd.	15,000.0	2017/12/27	2018/12/27	Short-term borrowing
SDIC Finance Co., Ltd.	85,000.0	2009/4/24	2024/6/15	Long-term borrowing
SDIC Finance Co., Ltd.	10,780.0	2010/8/19	2025/8/18	Long-term borrowing
SDIC Finance Co., Ltd.	126,370.0	2010/8/23	2025/8/23	Long-term borrowing

49. Parent company and related party transactions (continued)

(v) Borrowings of related parties (continued)

2017/12/31 RMB (‘000) (continued)

Related party	Amount of borrowing	State date	End date	Description
SDIC Finance Co., Ltd.	21,780.0	2010/8/27	2024/11/25	Long-term borrowing
SDIC Finance Co., Ltd.	668,500.0	2010/10/8	2035/10/7	Long-term borrowing
SDIC Finance Co., Ltd.	18,650.0	2010/10/20	2025/10/20	Long-term borrowing
SDIC Finance Co., Ltd.	14,000.0	2011/9/15	2034/10/22	Long-term borrowing
SDIC Finance Co., Ltd.	102,475.0	2012/9/11	2030/9/10	Long-term borrowing
SDIC Finance Co., Ltd.	26,200.0	2013/7/2	2023/6/30	Long-term borrowing
SDIC Finance Co., Ltd.	92,660.5	2013/10/25	2027/10/25	Long-term borrowing
SDIC Finance Co., Ltd.	60,000.0	2014/7/23	2028/7/2	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2015/4/20	2035/4/19	Long-term borrowing
SDIC Finance Co., Ltd.	170,000.0	2015/8/11	2018/11/16	Long-term borrowing
SDIC Finance Co., Ltd.	140,000.0	2016/4/12	2019/8/2	Long-term borrowing
SDIC Finance Co., Ltd.	19,130.0	2016/8/10	2031/6/13	Long-term borrowing
SDIC Finance Co., Ltd.	19,800.0	2016/9/23	2019/9/23	Long-term borrowing
SDIC Finance Co., Ltd.	600,000.0	2016/10/24	2021/10/23	Long-term borrowing
SDIC Finance Co., Ltd.	49,000.0	2016/11/24	2019/11/24	Long-term borrowing
SDIC Finance Co., Ltd.	5,789.3	2016/12/19	2031/12/16	Long-term borrowing
SDIC Finance Co., Ltd.	23,750.0	2016/12/27	2030/12/27	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/3/6	2019/9/23	Long-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/3/15	2020/3/15	Long-term borrowing
SDIC Finance Co., Ltd.	40,000.0	2017/3/15	2020/3/14	Long-term borrowing
SDIC Finance Co., Ltd.	18,900.0	2017/3/28	2020/3/28	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/3/31	2019/9/23	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/4/27	2020/4/27	Long-term borrowing
SDIC Finance Co., Ltd.	800,000.0	2017/5/10	2022/5/9	Long-term borrowing
SDIC Finance Co., Ltd.	45,000.0	2017/5/15	2020/5/15	Long-term borrowing
SDIC Finance Co., Ltd.	500,000.0	2017/6/2	2030/6/2	Long-term borrowing
SDIC Finance Co., Ltd.	2,000.0	2017/6/7	2032/6/7	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/6/16	2020/4/27	Long-term borrowing
SDIC Finance Co., Ltd.	300,000.0	2017/6/26	2023/6/26	Long-term borrowing
SDIC Finance Co., Ltd.	17,000.0	2017/7/28	2032/6/27	Long-term borrowing
SDIC Finance Co., Ltd.	100,000.0	2017/8/21	2020/8/21	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/9/15	2020/5/15	Long-term borrowing
SDIC Finance Co., Ltd.	300,000.0	2017/9/19	2020/9/19	Long-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/10/17	2020/10/17	Long-term borrowing
SDIC Finance Co., Ltd.	40,000.0	2017/11/1	2020/11/1	Long-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2017/11/15	2020/11/15	Long-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2017/11/15	2020/11/15	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2017/11/28	2020/11/28	Long-term borrowing
SDIC Finance Co., Ltd.	50,000.0	2017/12/5	2020/12/5	Long-term borrowing
SDIC Finance Co., Ltd.	5,000.0	2017/12/18	2020/12/18	Long-term borrowing
SDIC Finance Co., Ltd.	105,000.0	2017/12/19	2020/12/19	Long-term borrowing
China National Investment and Guaranty Corporation	247,820.0	2017/12/14	2020/12/11	Long-term borrowing
China National Investment Consultation Co., Ltd.	8,000.0	2017/8/11	2018/8/11	Short-term borrowing
Rongshi International Holding Co., Ltd.	1,843,632.0	2017/8/14	2022/4/20	Long-term borrowing

Notes forming part of the consolidated financial information
For the three years ended 31 December 2016, 31 December 2017 and 31 December 2018 (continued)

49. Parent company and related party transactions (continued)

(v) Borrowings of related parties (continued)

2016/12/31 RMB ('000)

Related party	Amount of borrowing	State date	End date	Description
Borrowings:				
State Development & Investment Group Co., Ltd.	384,625.0	2008/7/25	2026/5/10	Long-term borrowing
State Development & Investment Group Co., Ltd.	1,040,000.0	2014/11/13	2017/11/13	Long-term borrowing
State Development & Investment Group Co., Ltd.	14,490.0	2014/12/26	2017/12/26	Long-term borrowing
State Development & Investment Group Co., Ltd.	520,000.0	2015/6/15	2018/6/15	Long-term borrowing
State Development & Investment Group Co., Ltd.	151,980.0	2015/9/15	2018/9/15	Long-term borrowing
State Development & Investment Group Co., Ltd.	351,010.0	2015/9/29	2018/9/29	Long-term borrowing
State Development & Investment Group Co., Ltd.	117,520.0	2016/3/22	2019/3/22	Long-term borrowing
State Development & Investment Group Co., Ltd.	1,280,600.0	2016/8/26	2019/8/26	Long-term borrowing
State Development & Investment Group Co., Ltd.	10,710.0	2016/3/15	2019/3/15	Long-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2016/5/6	2017/5/6	Short-term borrowing
SDIC Finance Co., Ltd.	23,000.0	2016/10/19	2017/10/19	Short-term borrowing
SDIC Finance Co., Ltd.	100,000.0	2016/11/10	2017/11/10	Short-term borrowing
SDIC Finance Co., Ltd.	40,000.0	2016/11/10	2017/11/10	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2016/12/6	2017/12/6	Short-term borrowing
SDIC Finance Co., Ltd.	40,000.0	2016/12/6	2017/12/6	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2016/12/12	2017/12/12	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2016/12/19	2017/12/19	Short-term borrowing
SDIC Finance Co., Ltd.	800.0	2016/12/29	2017/1/3	Short-term borrowing
SDIC Finance Co., Ltd.	200.0	2016/12/29	2017/1/19	Short-term borrowing
SDIC Finance Co., Ltd.	40,000.0	2016/1/19	2017/1/18	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2016/2/1	2017/2/1	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2016/2/25	2017/2/25	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2016/3/7	2017/3/7	Short-term borrowing
SDIC Finance Co., Ltd.	60,000.0	2016/3/15	2017/3/15	Short-term borrowing
SDIC Finance Co., Ltd.	15,000.0	2016/3/16	2017/3/16	Short-term borrowing
SDIC Finance Co., Ltd.	3,000.0	2016/3/17	2017/3/17	Short-term borrowing
SDIC Finance Co., Ltd.	30,000.0	2016/3/18	2017/3/18	Short-term borrowing
SDIC Finance Co., Ltd.	200,000.0	2016/3/25	2017/3/25	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2016/3/28	2017/3/28	Short-term borrowing
SDIC Finance Co., Ltd.	100,000.0	2016/3/30	2017/3/30	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2016/4/1	2017/4/1	Short-term borrowing
SDIC Finance Co., Ltd.	45,000.0	2016/4/7	2017/4/7	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2016/4/27	2017/4/27	Short-term borrowing
SDIC Finance Co., Ltd.	2,000.0	2016/5/17	2017/5/17	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2016/6/15	2017/6/15	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2016/6/16	2017/6/16	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2016/6/28	2017/6/28	Short-term borrowing

Notes forming part of the consolidated financial information
For the three years ended 31 December 2016, 31 December 2017 and 31 December 2018 (continued)

49. Parent company and related party transactions (continued)

(v) Borrowings of related parties (continued)

2016/12/31 RMB (‘000) (continued)

Related party	Amount of borrowing	State date	End date	Description
SDIC Finance Co., Ltd.	180,000.0	2016/7/4	2017/7/4	Short-term borrowing
SDIC Finance Co., Ltd.	3,800.0	2016/8/5	2017/8/5	Short-term borrowing
SDIC Finance Co., Ltd.	55,000.0	2016/8/23	2017/8/23	Short-term borrowing
SDIC Finance Co., Ltd.	11,000.0	2016/9/14	2017/9/14	Short-term borrowing
SDIC Finance Co., Ltd.	7,600.0	2016/9/23	2017/9/23	Short-term borrowing
SDIC Finance Co., Ltd.	14,000.0	2016/10/12	2017/10/12	Short-term borrowing
SDIC Finance Co., Ltd.	11,000.0	2016/10/12	2017/10/12	Short-term borrowing
SDIC Finance Co., Ltd.	10,000.0	2016/10/17	2017/10/17	Short-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2016/11/18	2017/11/18	Short-term borrowing
SDIC Finance Co., Ltd.	50,000.0	2016/12/6	2017/12/6	Short-term borrowing
SDIC Finance Co., Ltd.	15,000.0	2016/12/12	2017/12/12	Short-term borrowing
SDIC Finance Co., Ltd.	15,000.0	2016/12/16	2017/12/16	Short-term borrowing
SDIC Finance Co., Ltd.	5,200.0	2016/12/19	2017/12/19	Short-term borrowing
SDIC Finance Co., Ltd.	15,000.0	2016/12/28	2017/12/27	Short-term borrowing
SDIC Finance Co., Ltd.	27,000.0	2016/12/28	2017/12/28	Short-term borrowing
SDIC Finance Co., Ltd.	11,780.0	2010/8/19	2025/8/18	Long-term borrowing
SDIC Finance Co., Ltd.	137,760.0	2010/8/23	2025/8/23	Long-term borrowing
SDIC Finance Co., Ltd.	23,780.0	2010/8/27	2024/11/25	Long-term borrowing
SDIC Finance Co., Ltd.	20,010.0	2010/10/20	2025/10/20	Long-term borrowing
SDIC Finance Co., Ltd.	109,925.0	2012/9/11	2030/9/10	Long-term borrowing
SDIC Finance Co., Ltd.	26,250.0	2013/10/25	2027/10/25	Long-term borrowing
SDIC Finance Co., Ltd.	60,000.0	2014/7/23	2028/7/2	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2015/4/20	2035/4/19	Long-term borrowing
SDIC Finance Co., Ltd.	2,865.0	2016/8/10	2031/6/13	Long-term borrowing
SDIC Finance Co., Ltd.	3,209.0	2016/8/23	2031/6/13	Long-term borrowing
SDIC Finance Co., Ltd.	20,000.0	2016/9/23	2019/9/23	Long-term borrowing
SDIC Finance Co., Ltd.	4,070.0	2016/10/18	2031/6/13	Long-term borrowing
SDIC Finance Co., Ltd.	250,000.0	2016/10/24	2021/10/23	Long-term borrowing
SDIC Finance Co., Ltd.	14,000.0	2016/11/24	2019/11/24	Long-term borrowing
SDIC Finance Co., Ltd.	4,370.0	2016/11/25	2031/6/13	Long-term borrowing
SDIC Finance Co., Ltd.	4,000.0	2016/12/19	2031/12/16	Long-term borrowing
SDIC Finance Co., Ltd.	8,760.0	2016/12/27	2030/12/27	Long-term borrowing
SDIC Finance Co., Ltd.	8,460.0	2016/12/27	2030/12/27	Long-term borrowing
SDIC Finance Co., Ltd.	85,000.0	2009/4/24	2024/6/15	Long-term borrowing
SDIC Finance Co., Ltd.	28,400.0	2013/7/2	2023/6/30	Long-term borrowing
SDIC Finance Co., Ltd.	170,000.0	2015/8/11	2018/11/16	Long-term borrowing
SDIC Finance Co., Ltd.	140,000.0	2016/4/12	2019/8/2	Long-term borrowing
SDIC Finance Co., Ltd.	668,500.0	2010/10/8	2035/10/7	Long-term borrowing
SDIC Finance Co., Ltd.	28,000.0	2011/9/15	2034/10/22	Long-term borrowing
China National Investment Consultation Co., Ltd.	8,000.0	2014/5/27	2017/5/27	Long-term borrowing

49. Parent company and related party transactions (continued)

(v) Borrowings of related parties (continued)

Interest expense for related borrowing RMB ('000):

Related party	Item	2018	2017	2016
SDIC Finance Co., Ltd.	Interest expense	296,921.9	200,553.8	142,539.2
State Development & Investment Group Co., Ltd.	Interest expense	118,829.7	112,084.5	111,823.6
Rongshi International Holding Co., Ltd.	Interest expense	63,807.2	15,840.1	—
China National Investment and Guaranty Corporation	Interest expense	11,235.6	621.3	—
China National Investment Consultation Co., Ltd.	Interest expense	348.5	292.3	386.3

(vi) Assets transfer and debt restructuring of related parties RMB ('000)

Item	2018	2017	2016
Salaries of key management personnel	7,940.1	7,098.0	6,856.9

(vii) Receivables from or payables to related parties

Receivables RMB ('000)

		2018		2017		2016	
Items	Related Party	Book balance	Bad debt reserve	Book balance	Bad debt reserve	Book balance	Bad debt reserve
Account receivables	SDIC Qinzhou Harbor Co., Ltd.	308.8	—	—	—	—	—
Interest receivable	SDIC Finance Co., Ltd.	3,320.4	—	7,158.1	—	3,120.5	—
Advance payment	China National Investment Consultation Co., Ltd.	7.7	—	—	—	—	—
Long-term account receivables	Lestari Listrik Pte. Ltd.	562,741.9	—	472,718.4	—	453,664.4	—
	Beatrice Offshore Wind farm Limited	516,737.0	—	—	—	—	—

Payables RMB ('000)

Items	Related Party	2018	2017	2016
Accounts payables	SDIC Meizhou Bay Harbor Co., Ltd.	43,139.1	21,770.6	458.7
	Beijing CEEDI Engineering & Technology Co., Ltd.	105.0	—	—
	China Electronics Engineering Design Institute Co., Ltd	100.0	196.0	—
Long-term payables	Beijing Century Benefits Co., Ltd.	—	2,128.5	2,013.3
	SDIC Finance Lease Co., Ltd.	2,361,800.0	1,236,973.2	2,614,937.7
Other payables	State Development & Investment Group Co., Ltd.	—	0.9	0.9
	SDIC High-tech Investment Co., Ltd.	7,412.8	7,412.8	7,412.8

49. Parent company and related party transactions (continued)

(vii) Receivables from or payables to related parties (continued)

Payables RMB ('000) (continued)

Items	Related Party	2018	2017	2016
Interest payables	Rongshi International Holding Co., Ltd.	43,694.8	3,540.3	—
	SDIC Finance Co., Ltd.	14,318.2	7,869.0	2,705.6
	SDIC Finance Lease Co., Ltd.	4,481.4	4,951.0	7,122.5
	State Development & Investment Group Co., Ltd.	2,946.0	2,984.0	3,493.2
	China Investment & Financing Guarantee Co., Ltd.	1,348.1	621.3	—
	China National Investment Consultation Co., Ltd.	11.2	10.6	11.6
Long-term borrowings	SDIC Finance Co., Ltd.	4,778,430.2	4,761,784.8	1,152,639.0
	State Development & Investment Group Co., Ltd.	3,697,675.0	3,724,145.0	3,870,935.0
	Rongshi International Holding Co., Ltd.	3,486,114.5	1,843,632.0	—
	SDIC Finance Lease Co., Ltd.	2,517,201.4	2,010,000.0	1,070,000.0
	China National Investment Consultation Co., Ltd.	—	—	8,000.0
	China National Investment and Guaranty Corporation	247,820.0	247,820.0	—
Non-current liabilities due within 1 year	State Development & Investment Group Co., Ltd.	1,408,830.0	—	—
	SDIC Finance Co., Ltd.	173,600.0	—	—
Short-term borrowings	SDIC Finance Co., Ltd.	629,360.0	1,306,000.0	1,408,600.0
	Rongshi International Holding Co., Ltd.	554,888.0	—	—
	SDIC Finance Lease Co., Ltd.	175,000.0	45,000.0	1,101,000.0
	China National Investment Consultation Co., Ltd.	8,000.0	8,000.0	—

50. Contingent liabilities

The Group has provided the following financial guarantees:

Guarantor	Guaranteed party	Amount of guarantee RMB(m)	Guarantee starting date	Guarantee due date	Whether the guarantee is performed completely	Method of guarantee
SDIC Power	BOWL	3.4	2016/8/20	2021/12/31	No	Credit
Jaderock Investment	PTLBE	832.3	2016/6/1	2029/12/31	No	Pledge of stock right

Based on historical experience, other than the guarantee Qujing Company for which a full provision for expected loss has been provided, there has been no experience of loss on such guarantees provided. The Directors therefore consider that any further provision for expected losses would be immaterial.

51. Capital commitments

Capital commitments contracted for at the end of the reporting period but not yet incurred are as follows:

	2018 RMB (m)	2017 RMB (m)	2016 RMB (m)
Property, plant and equipment	24,329.4	29,173.1	37,077.6

52. Notes to cash flow statement

	Long term loans RMB(m)	Long term bonds RMB(m)	Long term payables and lease liabilities RMB(m)	Short term loans RMB(m)	Short term bonds RMB(m)	Current portion of long term liabilities RMB(m)	Total RMB(m)
At 1 January 2016	91,632.0	1,800.0	3,144.0	8,021.0	3,500.0	11,081.2	119,178.2
Cash flows	—	—	—	—	—	—	—
Inflows	23,992.1	1,200.0	317.0	10,573.6	6,500.0	—	42,582.7
outflows	(4,355.6)	—	(274.1)	(10,676.7)	(5,500.0)	(11,081.2)	(31,887.6)
	—	—	—	—	—	—	—
Non-cash flows	—	—	—	—	—	—	—

	Long term loans RMB(m)	Long term bonds RMB(m)	Long term payables and lease liabilities RMB(m)	Short term loans RMB(m)	Short term bonds RMB(m)	Current portion of long term liabilities RMB(m)	Total RMB(m)
Amounts recognised on business combinations	—	—	—	—	—	—	—
Effects of foreign exchange	54.2	—	—	—	—	—	54.2
Loans and borrowings classified as noncurrent at 31 December 2016 becoming current during 2017	(7,787.2)	—	(889.9)	—	—	8,677.1	—
At 31 December 2016	103,535.5	3,000.0	2,297.0	7,917.9	4,500.0	8,677.1	129,927.5
At 1 January 2017	103,535.5	3,000.0	2,297.0	7,917.9	4,500.0	8,677.1	129,927.5
Cash flows	—	—	—	—	—	—	—
Inflows	20,649.3	—	107.1	7,883.2	1,200.0	—	29,839.6
outflows	(2,460.8)	—	(541.7)	(11,059.8)	(4,500.0)	(8,677.1)	(27,239.4)
	—	—	—	—	—	—	—
Non-cash flows	—	—	—	—	—	—	—
Amounts recognised on business combinations	—	—	—	—	—	—	—
Effects of foreign exchange	130.5	—	—	—	—	—	130.5
Loans and borrowings classified as noncurrent at 31 December 2017 becoming current during 2018	(12,967.7)	—	(1,014.7)	—	—	13,982.4	—
At 31 December 2017	108,886.8	3,000.0	847.7	4,741.3	1,200.0	13,982.4	132,658.2
At 1 January 2018	108,886.8	3,000.0	847.7	4,741.3	1,200.0	13,982.3	132,658.1
Cash flows							

52. Notes to cash flow statement (continued)

	Long term loans RMB(m)	Long term bonds RMB(m)	Long term payables and lease liabilities RMB(m)	Short term loans RMB(m)	Short term bonds RMB(m)	Current portion of long term liabilities RMB(m)	Total RMB(m)
Inflows	17,991.5	1,000.0	70.0	8,525.1	1,000.0	—	28,586.6
outflows	(3,896.7)	—	(96.9)	(7,502.3)	(1,200.0)	(13,982.3)	(26,678.2)
Non-cash flows							
Amounts recognised on business combinations	2,616.1	—	—	—	—	—	2,616.1
Effects of foreign exchange	(18.1)	—	—	—	—	—	(18.1)

	Long term loans RMB(m)	Long term bonds RMB(m)	Long term payables and lease liabilities RMB(m)	Short term loans RMB(m)	Short term bonds RMB(m)	Current portion of long term liabilities RMB(m)	Total RMB(m)
Loans and borrowings classified as noncurrent at 31 December 2018 becoming current during 2019	(13,875.5)	(1,800.0)	(42.0)	—	—	15,717.5	—
Others			128.3				128.3
At 31 December 2018	111,704.1	2,200.0	907.1	5,764.1	1,000.0	15,717.5	137,292.8

Others: the recognition of lease liabilities because of retrospective adjustment of IFRS 16 Leases

53. Transition to IFRS

This is the first set of financial information prepared by the Group under IFRS. Previously the group reported under PRC GAAP. There have been GAAP differences between IFRS and PRC GAAP. The Group has taken advantage of the exemption available not to restate business combinations that occurred prior to the transition date of 1 January 2016.

Under PRC GAAP, the transfer of Water supply, power supply, heating and property to government without consideration is offset with the undistributed profits.

Under IFRS, the transfer of water supply, power supply, heating and property to government without consideration go through other profit/(loss).

	Profit for the year attributable to owners of the company			Equity attributable to owner of the company		
	2018	2017	2016	2018	2017	2016
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
PRC GAAP	4,364.1	3,232.3	3,916.4	37,691.7	30,555.3	28,680.4
Adjustment:						
The transfer of Water supply, power supply, heating and property to government without consideration	(34.9)	—	—	—	—	—
IFRS	4,329.2	3,232.3	3,916.4	37,691.7	30,555.3	28,680.4

Report on review of Interim Historical Financial Information

BDO LLP
55 Baker Street
London
W1U 7EU

The Directors
SDIC Power Holdings CO., LTD
12F, No. 147 Building
Xizhimen Nanxiao Street
Xicheng District
Beijing 100034

29 October 2019

Dear Sir or Madam

SDIC Power Holdings CO., LTD (the "Company") and its subsidiaries (together, the "Group")

Introduction

We report on the condensed interim financial information as at and for the six months ended 30 June 2019 set out on pages F-92 to F-111 for the Group. This financial information has been prepared for inclusion in the registration document dated 29 October 2019 of the Company (the "Registration Document") on the basis of the accounting policies set out in note 2 to the condensed interim financial information. This report is required by item 18.2.1 of annex 1 of the Commission Delegated Regulation (EU) No. 2019/980 supplementing Commission Regulation (EU) 2017/1129 (the "Delegated Regulation") and is given for the purpose of complying with that item and for no other purpose. We have not audited or reviewed the condensed interim financial information for the six months ended 30 June 2018 which has been included for comparative purposes only and accordingly do not express an opinion thereon.

Responsibilities

The Directors of the Company are responsible for preparing the financial information in accordance with International Financial Reporting Standards as adopted by the European Union.

Our responsibility is to express an independent conclusion based on our review of the financial statements. We conducted our review in accordance with International Standard on Review Engagements 2400 (Revised), Engagements to review historical financial statements (ISRE 2400) issued by the international Auditing and Assurance Standards Board and ICAEW Technical Release TECH 09/13AAF Assurance review engagements on historical financial statements.

Save for any responsibility arising under item 1.2 of annex 1 of the Delegated Regulation to any person as and to the extent there provided, to the fullest extent permitted by the law we do not assume any responsibility and will not accept any liability to any other person for any loss suffered by any such other person as a result of, arising out of, or in connection with this report or our statement, required by and given solely for the purposes of complying with item 1.3 of annex 1 of the Delegated Regulation consenting to its inclusion in the Registration Document.

Scope of review

A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International

Standards on Auditing (UK) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Our work has not been carried out in accordance with auditing or other standards and practices generally accepted in the United States of America or other jurisdictions outside the United Kingdom and accordingly should not be relied upon as if it had been carried out in accordance with those standards and practices.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the condensed interim financial information for the six months ended 30 June 2019 is not prepared, in all material respects, in accordance with the requirements of item 18.2 of Annex 1 of the Delegated Regulation.

Declaration

For the purposes of item 1.2 of annex 1 of the Delegated Regulation, we are responsible for this report as part of the Registration Document and declare that to the best of our knowledge, the information contained in this report is in accordance with the facts and makes no omission likely to affect its import. This declaration is included in the Registration Document in compliance with item 1.2 of annex 1 of the Delegated Regulation.

Yours faithfully

BDO LLP
Chartered Accountants

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127)

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the six months ended 30 June 2019 and 30 June 2018

	Notes	2019 RMB (m) (unaudited)	2018 RMB (m) (unaudited)
Continuing operations:			
Revenue	**3**	19,609.5	17,786.5
Cost of sales		(11,839.5)	(10,985.7)
Gross profit		**7,770.0**	**6,800.8**
Administrative cost		(538.1)	(539.8)
Taxes and surcharges		(436.7)	(391.8)
Distribution cost		(1.8)	(3.6)
Impairment of financial assets		(86.0)	(77.8)
Impairment of property, plant and equipment, inventory and intangible		—	—
Other income and expense		74.0	138.3
Operating profit		**6,781.4**	**5,926.1**
Shares of profits of associates		426.3	219.4
Investment (loss)/income		—	0.5
Fair value movements on financial instrument measured at fair value through profit and loss		5.5	20.0
Finance income		72.7	34.4
Finance costs		(2,435.2)	(2,490.2)
Profit before tax from continuing operations		**4,850.7**	**3,710.2**
Income tax expense	**5**	(748.6)	(617.6)
Profit for the year from continuing operations		**4,102.1**	**3,092.6**
Profit for the year		**4,102.1**	**3,092.6**
Other comprehensive income:			
Items that will or may be reclassified to profit and loss			
Shares of other comprehensive income of associates		(154.5)	28.6
Effective portion of gains or losses arising from cash flow hedging instruments		(29.4)	—
Exchange differences on translating foreign operations		3.9	7.0
Valuation (losses)/gains in fair value through other comprehensive income		—	(1.3)
Items that will not or may not be reclassified to profit and loss			
Valuation (losses)/gains in fair value through other comprehensive income		(53.1)	—
Other comprehensive income net of tax		(233.1)	34.3
Total comprehensive income for the year		**3,869.0**	**3,126.9**
Profit for the year attributable to:			
Owners of the Company		2,275.0	1,570.5
Non-controlling interests		1,827.1	1,522.1
Total comprehensive income for the year attributable to:			
Owners of the Company		2,040.8	1,607.8
Non-controlling interests		1,828.2	1,519.1
		RMB	**RMB**
Earnings per share			
Basic and diluted:			
From continuing operations	**6**	0.3202	0.2286

CONSOLIDATED STATEMENT OF FINANCIAL POSITION
As at 30 June 2019 and 31 December 2018

	Notes	2019 30 June RMB (m) (unaudited)	2018 31 December RMB (m) (audited)
ASSETS			
Non-current assets:			
Property, plant and equipment	**7**	188,678.8	187,818.7
Investment properties		102.1	103.1
Intangible assets	**8**	1,870.9	2,007.4
Goodwill	**9**	411.0	409.4
Investments in associates		10,343.2	10,523.8
Fair value through other comprehensive income investment	**10**	160.0	188.8
Long-term receivable	**11**	1,461.7	1,126.6
Deferred tax assets		374.3	287.7
Other non-current assets	**12**	1,318.3	993.4
Total non-current assets		**204,720.3**	**203,458.9**
Current assets:			
Inventories		1,585.2	1,516.7
Accounts and notes receivables		6,243.2	5,813.0
Prepayments and other receivables		535.4	456.2
Tax recoverable		1,069.9	1,146.4
Cash and cash equivalents		7,965.0	7,470.0
Restricted deposits		45.5	130.5
Fair value through profit and loss investment		855.9	844.7
Other current assets		7.1	0.1
Total current assets		**18,307.2**	**17,377.6**
TOTAL ASSETS		**223,027.5**	**220,836.5**
EQUITY AND LIABILITIES			
EQUITY			
Equity attributable to owners of the Company			
Share capital		6,786.0	6,786.0
Other equity instruments		3,999.0	3,999.0
Reserves		8,125.6	8,359.8
Retained earnings/(accumulated losses)		19,193.2	18,546.9
Equity attributable to owners of the Company		38,103.8	37,691.7
Non-controlling interests		31,352.0	32,491.4
Total equity		**69,455.8**	**70,183.1**

CONSOLIDATED STATEMENT OF FINANCIAL POSITION
As at 30 June 2019 and 31 December 2018 (continued)

	Notes	2019 30 June RMB (m) (unaudited)	2018 31 December RMB (m) (audited)
LIABILITIES			
Non-current liabilities:			
Long-term loans	**13**	117,613.1	111,704.1
Long-term bonds	**14**	4,399.9	2,200.0
Long-term payable	**15**	168.3	514.6
Lease liabilities		426.5	392.5
Provision		346.8	415.2
Deferred income		224.5	210.5
Deferred tax liabilities		41.6	47.0
Total non-current liabilities		**123,220.7**	**115,483.9**
Current liabilities:			
Accounts and notes payables	**16**	3,501.4	5,507.3
Other payables		5,901.9	5,758.1
Taxes payables	**17**	750.8	1,135.1
Dividends payables	**18**	3,606.8	260.7
Short-term loans	**19**	6,234.9	5,764.1
Short-term bonds		1,000.0	1,000.0
Current portion of long-term liabilities	**20**	9,325.1	15,744.2
Other current liabilities		30.1	—
Total current liabilities		**30,351.0**	**35,169.5**
Total liabilities		**153,571.7**	**150,653.4**
TOTAL EQUITY AND LIABILITIES		**223,027.5**	**220,836.5**

CONSOLIDATED STATEMENT OF CASH FLOWS
For the six months ended 30 June 2019 and 30 June 2018

	Notes	2019 RMB (m) (unaudited)	2018 RMB (m) (unaudited)
Cash flows from operating activities:			
Profit for the year		4,102.1	3,092.6
Adjustments for:			
Depreciation of property, plant and equipment	**7**	3,654.7	3,328.6
Amortisation of intangible assets	**9**	154.6	139.8
Impairment losses of others		86.0	77.8
Finance income		(72.7)	(34.4)
Finance expense		2,418.8	2,455.3
Share of post-tax profits of equity accounted associates		(426.3)	(219.4)
Disposal of associates		—	(0.5)
Fair value change income		(5.5)	(20.0)
Loss/(gain) on the scrap of fixed assets		2.5	—
Loss/(gain) on sale of property, plant and equipment		(0.7)	0.1
Income tax expense		748.6	617.6
Decrease/(increase) in trade and other receivables		(192.0)	(793.1)
Decrease/(increase) in inventories		(68.1)	(299.7)
Increase/(decrease) in trade and other payables		(786.6)	(232.5)
Increase/(decrease) in provisions		(70.6)	(71.2)
Increase/(decrease) in employee benefit		33.5	34.7
Cash generated from operations		**9,578.3**	**8,075.7**
Income taxes paid		(659.9)	(561.2)
Net cash flows from operating activities		**8,918.4**	**7,514.5**
Investing activities:			
Acquisition of subsidiary, net of cash acquired		(384.4)	—
Disposal of subsidiary, net of cash acquired		0.3	—
Purchases of property, plant and equipment & Intangibles	**7**	(4,722.4)	(3,652.9)
Disposal of property, plant and equipment and other long-term assets		1.1	5.2
Purchases of associates		(20.5)	(889.3)
Prepayment for acquisition of subsidiaries		(150.0)	(1,038.3)
Purchase of other equity instruments		(30.0)	(830.0)
Shareholder loan to associates		(344.5)	—
Interest received		72.7	34.4
Dividends from associates		350.0	154.7
Other cash outflows related to investing activities		0.5	18.5
Net cash flows from investing activities brought forward		**(5,227.2)**	**(6,197.7)**

CONSOLIDATED STATEMENT OF CASH FLOWS
For the six months ended 30 June 2019 and 30 June 2018 (continued)

	Notes	2019 RMB (m) (unaudited)	2018 RMB (m) (unaudited)
Financing activities:			
Issue of ordinary shares to non-controlling interests		384.0	576.0
Issue of other equity instruments		—	1,999.6
Fiscally subsidized interest rate of subsidiaries		13.5	13.8
Dividends paid to the holders of the parent		—	—
Dividends paid to non-controlling interests		(1,551.3)	(2,200.2)
Interest paid on perpetual bonds		(106.0)	—
Proceeds from loans and borrowings		20,166.5	17,025.8
Repayment of loans and borrowings		(18,934.1)	(11,629.1)
Interest paid on loans and borrowings		(3,170.3)	(3,025.1)
Financial charges		(6.9)	(46.4)
Net cash (used in)/from financing activities		**(3,204.6)**	**2,714.4**
Net increase in cash and cash equivalents		**486.6**	**4,031.2**
Cash and cash equivalents at beginning of year			
Exchange gains/(losses) on cash and cash equivalents		8.4	(2.9)
Add: the beginning balance of cash and cash equivalents		7,470.0	4,972.4
Cash and cash equivalents at end of year		**7,965.0**	**9,000.7**

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
(for the six months ended 30 June 2019 and 30 June 2018)

	Share capital	Subordinated bonds	Capital reserve	Statutory surplus reserve	Discretionary surplus reserve	Portion of other comprehensive income of associates	Foreign currency translation reserve	Fair value through other comprehensive income instruments	Effective portion of gains or losses arising from cash flow hedging instruments	Retained earnings/ (accumulated losses)	Total	Non-controlling interests'	Total equity
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
At 1 January 2018	6,786.0	—	6,471.2	1,393.2	2.4	107.8	(11.5)	0.4	—	15,805.8	30,555.3	30,152.3	60,707.6
Profit for the year	—	—	—	—	—	—	—	—	—	1,570.5	1,570.5	1,522.1	3,092.6
Other comprehensive income	—	—	—	—	—	31.7	6.9	(1.3)	—	—	37.3	(3.0)	34.3
Total comprehensive income for the year	**—**	**—**	**—**	**—**	**—**	**31.7**	**6.9**	**(1.3)**	**—**	**1,570.5**	**1,607.8**	**1,519.1**	**3,126.9**
Issue other equity instruments	—	1,999.6	—	—	—	—	—	—	—	—	1,999.6	—	1,999.6
Investment by non-controlling interests	—	—	—	—	—	—	—	—	—	—	—	576.0	576.0
Transfer to surplus reserve	—	—	—	—	—	—	—	—	—	—	—	—	—
Dividends declared	—	—	—	—	—	—	—	—	—	(1,150.9)	(1,150.9)	(2,949.2)	(4,100.1)
Other	—	—	0.1	—	—	—	—	—	—	—	0.1	(20.1)	(20.0)
At 30 June 2018	**6,786.0**	**1,999.6**	**6,471.3**	**1,393.2**	**2.4**	**139.5**	**(4.6)**	**(0.9)**	**—**	**16,225.4**	**33,011.9**	**29,278.1**	**62,290.0**
At 1 January 2019	**6,786.0**	**3,999.0**	**6,468.8**	**1,731.6**	**2.4**	**150.1**	**7.7**	**(0.9)**	**—**	**18,547.0**	**37,691.7**	**32,491.4**	**70,183.1**
Profit for the half-year	—	—	—	—	—	—	—	—	—	2,275.0	2,275.0	1,827.1	4,102.1
Other comprehensive income	—	—	—	—	—	(155.6)	3.9	(53.1)	(29.4)	—	(234.2)	1.1	(233.1)
Total comprehensive income for the year	—	—	—	—	—	(155.6)	3.9	(53.1)	(29.4)	2,275.0	2,040.8	1,828.2	3,869.0
Investment by non-controlling interests	—	—	—	—	—	—	—	—	—	—	—	384.0	384.0
Transfer to surplus reserve	—	—	0.2	—	—	—	—	—	—	—	0.2	—	0.2
Dividends declared	—	—	—	—	—	—	—	—	—	(1,628.9)	(1,628.9)	(3,351.6)	(4,980.5)
At 30 June 2019	**6,786.0**	**3,999.0**	**6,469.0**	**1,731.6**	**2.4**	**(5.5)**	**11.6**	**(54.0)**	**(29.4)**	**19,193.1**	**38,103.8**	**31,352.0**	**69,455.8**

NOTES TO THE UNAUDITED CONSOLIDATED FINANCIAL INFORMATION FOR THE SIX MONTHS ENDED 30 JUNE 2019

1. GENERAL INFORMATION

SDIC Power Holdings Co Limited ('SDIC Power') was incorporated in the People's Republic of China (the 'PRC'). The registered address of the Company is: No.1108, 11F, No. 147 Building, Xizhimen Nanxiao Street, Xicheng District, Beijing. The Group is a leading power generation company in China, with a diversified portfolio of projects across hydropower, coal-fired power, wind power and solar power. The Group acquires, develops and operates power projects and sells the electricity generated by them to grid companies.

2. BASIS OF PREPARATION

These condensed consolidated interim financial statements for the period ended 31 June 2019 have been prepared in accordance with International Accounting Standard ("IAS") 34 '*Interim Financial Reportin*g' issued by the International Accounting Standards Board (the "IASB").

The interim report does not include all the information and disclosures required in the annual financial statements. Accordingly, this report is to be read in conjunction with the Group's annual financial statements for the year ended 31 December 2018 which have been prepared in accordance with International Finance Reporting Standards ("IFRS").

The consolidated financial statements are presented in Chinese Yuan rounded to the nearest million. The consolidated financial statements have been prepared on a historical cost basis except for certain financial instruments, which are measure at fair value, as appropriate.

The same accounting policies, presentation and methods of computation are consistent with those of the previous financial year.

In respect to the new or amended standard of IFRS 16 *Leases* which became applicable for the current reporting period, the group has adopted IFRS 16 retrospectively from 1 January 2016, and has restated comparatives from the 2016 reporting period, as permitted under the specific transitional provisions in the standard. The reclassifications and the adjustments arising from the new leasing rules were recognised in the ending balance sheet on 31 December 2016. Therefore, there is no changes in accounting policies for the current reporting period.

3. REVENUE FROM CONTRACTS WITH CUSTOMERS

Revenue is nearly entirely comprised of the power sales of the respective national grids in the company of operations, and the price is determined by national policies. Revenue is recognised at the point in time when energy service is provided and is invoiced on a monthly basis with limited accruing or deferral of revenue.

NOTES TO THE UNAUDITED CONSOLIDATED FINANCIAL INFORMATION FOR THE SIX MONTHS ENDED 30 JUNE 2019 (continued)

3. REVENUE FROM CONTRACTS WITH CUSTOMERS (continued)

A breakdown of the revenue by type and geography is provided below:

	For the six months ended 30 June	
	2019	2018
	RMB (m) (unaudited)	RMB (m) (unaudited)
Primary Geographic Markets		
China	19,560.8	17,786.5
Others	48.7	—
	19,609.5	**17,786.5**

	For the six months ended 30 June	
	2019	2018
	RMB (m) (unaudited)	RMB (m) (unaudited)
Revenue type		
Coal-fired power	10,125.7	8,765.2
Hydropower	8,247.6	8,081.1
Wind and solar power	853.1	663.7
Others	383.1	276.5
	19,609.5	**17,786.5**

In June 2018, generator #3 and #4 of SDIC Tianjin Jinneng Electric Power Co., Ltd., a coal-fired power company, were completed and put into operation.

4. SEGMENT INFORMATION

The Group evaluates segmental performance on the basis of profit or loss from operations calculated in accordance with PRC GAAP. Inter-segment sales are priced along the same lines as sales to external customers. This policy was applied consistently throughout the current and prior period.

Senior Management considers the business from a product perspective. Senior Management primarily assesses the performance of coal-fired power generation, hydropower generation, and wind and solar power generation and others separately. Other operating activities primarily include sales of coal ash and special investment vehicles, etc., which are defined as “others”.

Senior Management assesses the performance of the operating segments based on a measure of profit before tax as indicated below. Sales between operating segments are contracted close to market price and have been eliminated at consolidation level.

4. SEGMENT INFORMATION (continued)

(i) Segment revenues and results

The following is an analysis of the Group's revenue and results by reportable and operating segments:

	Coal-fired power	Hydropower	Wind and solar power	Others	Elimination of intersegment	Total
	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)
Segment revenues and results:						
For the six months ended 30 June 2019						
Revenue from external customers	10,125.7	8,247.6	853.1	383.1	—	19,609.5
Cost of sales	8,243.6	2,754.2	338.7	503.0	—	11,839.5
Segment result—profit/(loss) before tax	915.2	3,624.9	209.4	3,792.4	(3,691.2)	4,850.7
Depreciation and amortization	1,563.4	1,952.3	310.4	6.4	(23.2)	3,809.3
Impairment losses on assets	40.9	—	64.9	5.0	(24.8)	86.0
Finance expense	577.6	1,432.0	198.5	178.7	(24.3)	2,362.5
For the six months ended 30 June 2018						
Revenue from external customers	8,765.2	8,081.1	663.7	276.5	—	17,786.5
Cost of sales	7,779.9	2,621.6	289.9	294.3	—	10,985.7
Segment result—profit/(loss) before tax	342.2	3,300.6	30.0	3,148.6	(3,111.2)	3,710.2
Depreciation and amortization	1,391.3	1,830.0	267.5	5.8	(26.2)	3,468.4
Impairment losses on assets	42.5	—	53.3	1.8	(19.8)	77.8
Finance expense	452.6	1,622.9	180.2	232.2	(32.1)	2,455.8

(ii) Segment assets and liabilities

The following is an analysis of the Group's assets and liabilities by reportable and operating segment:

	Coal-fired power	Hydropower	Wind and solar power	Others	Elimination of intersegment	Total
	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)
Segment assets and liabilities:						
At 30 June 2019						
Segment assets	42,090.7	151,779.4	13,470.5	55,070.4	(39,383.5)	223,027.5
Segment liabilities	28,269.6	100,804.0	12,585.3	15,951.6	(4,038.8)	153,571.7
At 31 December 2018						
Segment assets	44,397.3	150,187.2	12,583.6	51,146.3	(37,477.9)	220,836.5
Segment liabilities	30,597.8	95,352.9	11,678.4	14,404.9	(1,380.6)	150,653.4

5. INCOME TAX EXPENSE

Income tax relating to continuing operations has been recognised in profit or loss as following:

	For the six months ended 30 June	
	2019	2018
	RMB (m) (unaudited)	RMB (m) (unaudited)
Current tax—PRC Enterprise Income Tax		
Provision for the year	831.1	635.3
Deferred tax	(82.5)	(17.7)
	748.6	**617.6**

5. INCOME TAX EXPENSE (continued)

The reconciliation between the income tax expense and the product profit before tax from continuing operations multiplied by the PRC Enterprise Income Tax rate is as follows:

	For the six months ended 30 June	
	2019	**2018**
	RMB (m) (unaudited)	**RMB (m) (unaudited)**
Profit before tax from continuing operations	**4,851.7**	**3,710.2**
Tax at the PRC Enterprise Income Tax rate of 25%	1,212.9	927.6
Different tax rate applicable to subsidiary companies	(408.6)	(414.7)
Adjustments to prior year provisions	40.6	109.9
Non-taxable income	(85.8)	(4.6)
Non-deductible expenses	—	(0.1)
Utilisation of tax losses not previously recognized	9.3	(11.3)
Deferred tax assets not recognized	(9.4)	10.8
Others	(10.4)	—
Income tax expense relating to continuing operations	**748.6**	**617.6**

6. EARNING PER SHARE

	30-Jun-19	**30-Jun-18**
	RMB (m) (unaudited)	**RMB (m) (unaudited)**
Profit for the year attributable to shareholders of the parent company	2,275.0	1,570.5
Interest of perpetual bond	(101.9)	(19.5)
	2,173.1	**1,551.0**
Weighted average number of shares used in basic EPS	**6,786.0**	**6,786.0**
Earnings per share		
Basic and diluted:		
From continuing operations	**0.3202**	**0.2286**

There are no outstanding share options or warrants, which would have a dilutive impact on earnings per share.

7. PROPERTY, PLANT AND EQUIPMENT

	Land use rights	Buildings and structures	Mechanical equipment	Transportation facilities	Office equipment and others	Construction in progress	Project goods and material	Highway use right	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Cost:									
At 31 December 2018 and 1 January 2019	**1,907.6**	**129,859.7**	**73,467.6**	**473.4**	**523.1**	**44,270.2**	**38.5**	**1,667.7**	**252,207.8**
Additions :									
Buying	—	0.2	13.1	9.5	7.7	—	—	—	30.5
Transfer from construction in progress	—	86.4	593.9	5.2	1.3	(686.7)	—	—	0.1
Increased by business merger	41.6	97.6	706.6	0.1	—	—	—	—	845.9
Others	—	(5.8)	(411.6)	5.2	(4.9)	3,957.7	(36.6)	—	3,504.0
Disposals	—	—	(176.2)	(16.4)	(14.8)	—	—	—	(207.4)
At 30 June 2019	**1,949.2**	**130,038.1**	**74,193.4**	**477.0**	**512.4**	**47,541.2**	**1.9**	**1,667.7**	**256,380.9**
Accumulated Depreciation and Impairment Loss:									
At 31 December 2018 and 1 January 2019	351.6	30,146.2	32,644.2	330.5	378.3	—	—	538.3	64,389.1
Additions :									—
Depreciation for the year	19.5	1,608.1	1,948.5	24.2	31.7	—	—	22.7	3,654.7
Others	—	(7.0)	(133.0)	(0.5)	(5.4)	—	—	—	(145.9)
Disposals	—	—	(134.5)	(15.6)	(15.1)	—	—	—	(165.2)
Impairment :									
Increases	—	—	—	—	—	—	—	—	—
Decreases	—	—	(30.6)	—	—	—	—	—	(30.6)
At 30 June 2019	**371.1**	**31,747.3**	**34,294.6**	**338.6**	**389.5**	**—**	**—**	**561.0**	**67,702.1**
Carrying Amount :									
At 31 December 2018	**1,556.0**	**99,713.5**	**40,823.4**	**142.9**	**144.8**	**44,270.2**	**38.5**	**1,129.4**	**187,818.7**
At 30 June 2019	**1,578.1**	**98,290.8**	**39,898.8**	**138.4**	**122.9**	**47,541.2**	**1.9**	**1,106.7**	**188,678.8**

Note: 'Others' mainly includes the original value adjustment, transfer from investment property, transfer to investment property, and others.

7. PROPERTY, PLANT AND EQUIPMENT (continued)

(i) Construction in progress

Significant construction in progress is mainly including the Lianghekou Hydropower Project and the Yangfanggou Hydropower Project, which have a final balance of RMB32,996.1 million and RMB6,785.1 million respectively. In the current period, the SDIC Yili technical transformation project was newly added, of which result in an increase of RMB160.5 million to construction in progress. As of 30 June 2019, the accumulated amount of interest capitalized for construction in progress is RMB5,102.5 million.

(ii) Right of use assets

	Cost	Accumulated Depreciation	Impairment	Carrying Amount
	RMB (m)	RMB (m)	RMB (m)	RMB (m)
As of 31 December 2018				
Mechanical equipment	2,325.5	801.6	—	1,523.9
Land use rights	128.3	—	—	128.3
	2,453.8	**801.6**	**—**	**1,652.2**
As of 30 June 2019				
Mechanical equipment	1,536.7	821.4	—	715.3
Land use rights	128.3	2.4	—	125.9
	1,665.0	**823.8**	**—**	**841.2**

8. INTANGIBLE ASSETS

Intangible assets consisted of the following:

	Software	House Use Right	Sea Area Use Right	Water Intake Right	BOT Concession Right	Carbon Emission Right	Renewables Obligation Certificate	Total
	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)	RMB (m)
Cost:								
At 31 December 2018 and 1 January 2019	**313.0**	**6.7**	**211.0**	**28.8**	**4,855.7**	**1.0**	**312.3**	**5,728.5**
Additions	13.0	—	5.1	—	—	2.0	1.3	21.4
Increased by business merger	0.7	—	—	—	—	—	—	0.7
Other decrease	(0.1)	—	—	—	(0.1)	(2.9)	—	(3.1)
At 30 June 2019	**326.6**	**6.7**	**216.1**	**28.8**	**4,855.6**	**0.1**	**313.6**	**5,747.5**
Accumulated Amortisation and Impairment Losses:								
At 31 December 2018 and 1 January 2019	170.7	3.2	44.6	16.8	3,481.3	—	4.5	3,721.1
Amortisation for the Year	19.6	0.1	2.5	0.7	122.6	—	9.1	154.6
Increased by business merger	0.1	—	—	—	—	—	—	0.1
Other increase	—	—	0.8	—	—	—	—	0.8
At 30 June 2019	**190.4**	**3.3**	**47.9**	**17.5**	**3,603.9**	**—**	**13.6**	**3,876.6**
Carrying Amount:								
At 31 December 2018	**142.3**	**3.5**	**166.4**	**12.0**	**1,374.4**	**1.0**	**307.8**	**2,007.4**
At 30 June 2019	**136.2**	**3.4**	**168.2**	**11.3**	**1,251.7**	**0.1**	**300.0**	**1,870.9**

The government has signed a concession agreement with Pacific, granting Pacific the right to undertake the investment, financing, construction and maintenance of the coal-fired power plant. Within the concession period stipulated in the agreement, the government granted Pacific the right to finance the construction and operation of the coal-fired power plant, and allowed Pacific to recover the invested capital and earn profits. The government has supervisory and regulatory authority over the infrastructure and the Pacific needs to transfer the coal-fired power plant to the government for free upon expiration of the concession at June of 2025.

9. GOODWILL AND IMPAIRMENT

	RMB (m)
Cost	
At 1 January 2019	409.4
Exchange differences	1.6
At 30 June 2019	411.0

The carrying amount of goodwill is allocated to the cash generating units (CGUs) as follows:

	2019	2018
	RMB(m)	RMB(m)
Name of invested entity or goodwill-generating event		
SDIC Xuancheng	5.1	5.2
Red Rock Power Limited	405.9	404.2
	411.0	**409.4**

The Group is required to test, on an annual basis, whether goodwill has suffered any impairment. The recoverable amount is determined based on value in use calculations. The use of this method requires the estimation of future cash flows and the determination of a discount rate in order to calculate the present value of the cash flows.

The recoverable amounts of the cash-generating units (CGUs) have been determined on the basis of their value in use using discounted cash flow (DCF) method. The key assumptions for the DCF method for power generation units include the expected tariff rates, demands of electricity in specific regions where these power plants are located and fuel cost.

The key assumptions for the DCF method are based on past practices and future expectations on market development.

The Group prepares cash flow forecasts derived from the most recent financial budgets approved by the directors for the best estimated period. The Group expects cash flows beyond the respective forecast periods below will be similar to that of last year of respective forecast based on existing production capacity.

The lifetime of project Beatrice of Redrock is 25 years, which is the period over which the cash flows have been projected, the power price is GBP 140/MWh, and the main cost is operation maintenance. The discount rates used in respective value in use calculations are ranged from 8.0% to 9.0%, and the inflation rate are ranged from 2.0% to 3.0%. Based on these assessments, the Group believes that there is no impairment of goodwill at 30 June 2019.

10. FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME INVESTMENT

	Beginning balance		Increase/ Decrease in cost	Fair Value changes	Ending balance	
	Investment Cost	Fair Value			Investment Cost	Fair Value
	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)	RMB (m) (unaudited)
Yunnan Coal Chemical Industry Group Co., Ltd . . .	53.1	53.1	—	(53.1)	—	—
Guian New Area Distribution Power Co., Ltd	60.0	60.0	—	—	60.0	60.0
Fujian Sanchuan Offshore Wind Power Co., Ltd	60.0	60.0	30.0	—	90.0	90.0
SDIC Hami Industrial Co., Ltd.	10.0	10.0	—	—	10.0	10.0
Yunnan Yunwei Corp. Ltd. . .	5.7	5.7	(5.7)	—	—	—
	188.8	**188.8**	**24.3**	**(53.1)**	**160.0**	**160.0**

The Group recognises the non-trading equity instruments of the above-mentioned companies as financial assets measured at fair value through other comprehensive income investment, and obtains fair value using reasonable valuation methods.

(i) Fair value of Fujian Sanchuan Offshore Wind Power Co., Ltd. (DCF method)

The lifetime of Project is 25 years, which is the period over which the cash flows have been projected, the power price is RMB 0.7522 KWh, and the main cost is operation maintenance. The discount rate adopted in respective value in use calculations are from 10.41%-11.12%, and the risk-free return rate is 3.65%. Based on these assessments, the Group believes that there is no material fair value movement.

(ii) Fair value of SDIC Hami Industrial Co., Ltd. (DCF method)

The company's income mainly comes from property services. The forecast period is 5 years, and the cost is mainly labor cost. The discount rate adopted in respective value in use calculations is 11.16%, and the risk-free return rate is 4.08%. Based on these assessments, the Group believes that there is no material fair value movement.

(iii) Fair value of SDIC Guian New Area Distribution Power Co., Ltd. (DCF method)

The company's income mainly comes from electricity sale. The forecast period is 8 years, and the cost is mainly the purchase cost of electricity. The discount rate adopted in respective value in use calculations is 9.37%, and the risk-free return rate is 4.08%. Based on these assessments, the Group believes that there is no material fair value movement.

(iv) Fair value of Yunnan Coal Chemical Industry Group Co., Ltd. (DCF method)

The company's income mainly comes from coal chemical service. The forecast period is 5 years, and the cost is mainly labor cost and operation expenditure. The discount rate adopted in respective value in use calculation is 7.27%, and the risk-free return rate is 4.08%.

11. LONG-TERM RECEIVABLE

Long-term receivable consisted of the following:

	30-Jun-19	31-Dec-18
	RMB (m) (unaudited)	RMB (m) (audited)
Shareholder Loans	1,427.1	1,079.5
Others	65.9	65.9
Impairment	(31.3)	(18.8)
	1,461.7	**1,126.6**

Most of shareholder loans are interest free and repayable on demand. It has been classified as non-current based on expectation of recovery rather than terms of legal agreement.

In the current period, Red Rock Power Limited has provided BOWL with a shareholder loan of GBP61,605,257.62, which the maturity date is 31 December 2040.

In the current period, Jaderock Investment Singapore Pte Ltd. has repaid RMB191.8 million to the Group.

In the current period, the SDIC Meizhou Bay Electric Power Co., Ltd. has accrued RMB12.5 million of the bad debts of long-term receivables in accordance with accounting policy.

12. OTHER NON-CURRENT ASSETS

Other non-current assets consisted of the following:

	30-Jun-19	31-Dec-18
	RMB (m) (unaudited)	RMB (m) (audited)
VAT recoverable	991.8	836.6
Prepayments	326.5	156.8
	1,318.3	**993.4**

13. LONG-TERM LOANS

Long-term loans consisted of the following:

	30-Jun-19	31-Dec-18
	RMB (m) (unaudited)	RMB (m) (audited)
Secured loans	11,343.0	10,705.4
Guaranteed loans	377.3	398.1
Unsecured loans	105,892.8	100,600.6
	117,613.1	**111,704.1**

14. LONG-TERM BONDS

Long-term bonds consisted of the following:

	30-Jun-19	31-Dec-18
	RMB (m) (unaudited)	RMB (m) (audited)
Corporate bonds	4,399.9	2,200.0
	4,399.9	**2,200.0**

14. LONG-TERM BONDS (continued)

Corporate bonds issued by the Group on 27 October 2016, 18 November 2016, with par value of RMB100 each totalling RMB1.2 billion. The bonds have a 5-year term with fixed annual coupon and nominal interest rate of 3.10%, 3.32%, respectively.

Corporate bonds issued by the Yalong River Hydropower Development Co., Ltd. on 25 April 2019, with par value of RMB100 each totalling RMB1.0 billion. The bonds have a 5-year term with fixed annual coupon and nominal interest rate of 3.93%.

Corporate bonds issued by the Group on 12 June 2019, with par value of RMB100 each totalling RMB1,199.9 million. The bonds have a 10-year term with fixed annual coupon and nominal interest rate of 4.59%.

In the current period, the Group repaid the 2013 corporate bonds of SDIC Power Holdings Co., Ltd. (Phase I) which had been issued by the Group on 21 March 2014, with par value of RMB100 each totaling RMB1.8 billion.

15. LONG-TERM PAYABLES

Long-term payables consisted of the following:

	30-Jun-19	31-Dec-18
	RMB (m) (unaudited)	RMB (m) (audited)
Amount due to non-controlling interest	168.3	514.6
	168.3	**514.6**

In April 2019, SDIC Genting Meizhou Bay Electric Power absorbed and merged with Fujian Pacific Electric Power Co., Ltd., and subsequently Meizhou Bay would repay the shareholder loan (provided by Fujian Pacific Electric Power) in four phases according to the agreement which is expected to be fully repaid by the end of 2021.

In the current period, the company has repaid fully Phase I, the amount was RMB240.6 million. Phase II will expire within one year, the amount is RMB106 million.

16. ACCOUNTS AND NOTES PAYABLES

Accounts and notes payables consisted of the following:

	30-Jun-19	31-Dec-18
	RMB (m) (unaudited)	RMB (m) (audited)
Notes payable	195.2	422.1
Accounts payable	2,894.7	4,677.8
Advance receipt	411.5	407.4
	3,501.4	**5,507.3**

In the current period, SDIC Jingyuan Second Power Co., Ltd. has settled the coal payables of RMB200 million. Also, there are some settlements of accounts payable because of completed projects, including Qinzhou #3 and #4 units (have been put into operation), Meizhou Bay Phase II project, Dachaoshan and Yunnan metallurgy.

17. TAXES PAYABLES

Taxes payables consisted of the following:

	30-Jun-19 RMB (m) (unaudited)	31-Dec-18 RMB (m) (audited)
Value-added tax	156.3	515.2
Enterprise income tax	392.7	304.0
Personal income tax	3.3	79.4
Urban maintenance and construction tax	12.3	36.0
House tax	6.5	6.8
Education fee surcharge	8.1	24.9
Resource tax	69.2	89.0
Land use tax	4.9	4.6
Others	97.5	75.2
	750.8	**1,135.1**

18. DIVIDENDS PAYABLES

Dividends payables consisted of the following:

	30-Jun-19 RMB (m) (unaudited)	31-Dec-18 RMB (m) (audited)
Dividend payables	**3,606.8**	**260.7**

In 2018, the directors of Group have proposed a final dividend of RMB0.2250 cents based on 6,786,023,347 shares per share totaling RMB1,526.9 million. On 31 May 2019, the above dividend distribution scheme was approved by the Group's 2018 Annual General Meeting of Shareholders and the meeting decided to issue cash dividends on 31 July 2019.

As of 30 June 2019, the interest payable of the Group's renewable corporate bonds is RMB114.5 million and the remaining dividend payables are the dividend payable to SDIC New Energy Investment Co., Ltd., SDIC Yunnan Dachaoshan Hydropower Co., Ltd. and Toksun Trina Solar Energy Co., Ltd. and Yalong River Hydropower Development Co., Ltd.

19. SHORT-TERM LOANS

Short-term loans consisted of the following:

	30-Jun-19 RMB (m) (unaudited)	31-Dec-18 RMB (m) (audited)
Secured loans	215.0	175.0
Unsecured loans	6,019.9	5,589.1
	6,234.9	**5,764.1**

20. CURRENT PORTION OF LONG-TERM LIABILITIES

Current portion of long-term liabilities consisted of the following:

	30-Jun-19	31-Dec-18
	RMB (m) (unaudited)	RMB (m) (audited)
Long-term loans due within one year	9,164.3	13,875.5
Long-term payable due within one year	106.6	—
Long-term bonds due within one year	—	1,800.0
Lease liabilities due within one year	54.2	42.0
Deferred income due within one year	—	26.7
	9,325.1	**15,744.2**

21. BUSINESS COMBINATION

On 21 May 2019 the Group acquired 100 percent of the issued shares in Toksun Trina Solar Energy Co., Ltd. for consideration of RMB447.1 million. The acquisition is expected to increase the Group's market share and reduce cost through economies of scale.

Details of the net assets acquired, the purchase consideration and goodwill are as follows:

	Fair value
	RMB (m) (unaudited)
Property, plant and equipment	805.8
Intangibles	42.0
Deferred tax assets	4.5
Receivables	267.9
Prepayments	0.3
Cash	40.4
Other current assets	142.6
Borrowings	648.0
Accounts payables	11.6
Other payables	124.9
Current portion of long-term liabilities	56.4
Total net assets	**462.6**
Fair value of consideration paid:	
Cash	447.1
Bargain purchase	**(15.5)**

Acquisition costs of RMB1.1 million arose as a result of the transaction. The acquisition costs and the bargain purchase have been recognised as part of administrative expenses and other income and expense respectively in the statement of comprehensive income.

The acquired business contributed revenues of RMB12.1 million and net profit of RMB14.3 million to the Group for the period from 21 May 2019 to 30 June 2019. If the acquisition had occurred on 1 January 2019, consolidated revenue and consolidated profit after tax for the half-year ended 30 June 2019 would have been RMB72.7 million and RMB29.1 million respectively.

22. CAPITAL COMMITMENTS

Capital commitments contracted for at the end of the reporting period but not yet incurred are as follows:

	30-Jun-19	31-Dec-18
	RMB (m) (unaudited)	RMB (m) (audited)
Property, plant and equipment	23,683.8	24,329.4
	23,683.8	**24,329.4**

23. EVENTS OCCURRING AFTER THE REPORTING PERIOD

(i) The acquisition of Newsky

After the reporting period the Group acquired 60 percent of the issued shares in Newsky (China) Environment & Tech Co., Ltd., a company that manages environmental pollutants such as solid waste, sludge and kitchen waste, for cash consideration of RMB403.2 million.

The provisionally determined fair value of the net identifiable assets of the company at the date of acquisition was RMB403.2 million and the acquisition did not generate purchased goodwill.

The financial effects of the above transaction have not been brought to account at 30 June 2019. The operating results and assets and liabilities of the company will be brought to account from the acquiring date.

(ii) The proposed transfers of six coal-fired power companies

On 30 August 2019, the Group announced that, in accordance with the Group's strategy to focus on clean energy, it proposed to make available for sale its entire equity interests in six coal-fired power companies by way of listing for public trade at the Shanghai United Assets and Equity Exchange. The interests available for sale comprise: (i) a 51.00% equity interest in SDIC Xuancheng; (ii) a 55.00% equity interest in SDIC Beibuwan; (iii) a 60.00% equity interest in SDIC Yili; (iv) a 51.22% equity interest in Jingyuan Second Power; (v) a 35.00% equity interest in Huaibei Guo'an Power Co., Ltd.; and (vi) a 45.00% equity interest in GEPIC Zhangye Power Generation Co., Ltd..

As at the balance sheet date, 30 June 2019, neither the timing of the proposed sales nor the terms of their disposal has been set and no transactional agreements have been entered into by the Group in relation to the proposed transfers. Therefore, the conditions of IFRS 5 *Non-current assets held for sale and discontinued operations* had not been met.

24. SEASONALITY OF OPERATIONS

Certain activities of the Group are affected by weather and hydrological conditions. As a result of this, the amounts reported for the interim period may not be indicative of the amounts that will be reported for the full year due to seasonal fluctuations in customer demand for gas, electricity and services, the impact of hydrological condition and weather on demand, renewable generation output, market changes in commodity prices and changes in retail tariffs. In networks, the volumes of electricity distributed or transmitted across network assets are dependent on levels of customer demand which are generally higher in the third quarter winter months. As a result, the revenue in the first half of the year is lower than the revenue in the second half year.

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