IMPORTANT NOTICE

THIS OFFERING IS AVAILABLE ONLY TO INVESTORS WHO ARE EITHER (1) QIBS (AS DEFINED BELOW) OR (2) ADDRESSEES OUTSIDE OF THE UNITED STATES

IMPORTANT: You must read the following disclaimer before continuing. The following disclaimer applies to the attached offering memorandum (the "**Offering Memorandum**"). You are therefore advised to read this disclaimer carefully before reading, accessing or making any other use of the attached. In accessing the attached, you agree to be bound by the following terms and conditions, including any modifications to them from time to time, each time you receive any information from us as a result of such access.

Confirmation of your Representation: You have accessed the attached document on the basis that you have confirmed your representation to The Hongkong and Shanghai Banking Corporation Limited, Morgan Stanley & Co. International plc, Citigroup Global Markets Inc., Standard Chartered Bank, J.P. Morgan Securities plc, MUFG Securities Asia Limited and Westpac Banking Corporation (collectively, the "**Initial Purchasers**") that (1) either (i) you and any customers you represent are outside the United States and the electronic mail address that you gave us and to which this e-mail has been delivered is not located in the United States and, to the extent you purchase the securities described in the attached Offering Memorandum you will be doing so pursuant to Regulation S under the U.S. Securities Act of 1933, as amended (the "**Securities Act**"), or (ii) you are acting on behalf of, or you are, a qualified institutional buyer ("**QIB**"), as defined in Rule 144A under the Securities Act, and (2) you consent to delivery of the attached Offering Memorandum and any amendments or supplements thereto by electronic transmission.

The attached document has been made available to you in electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of transmission and consequently none of the Initial Purchasers nor any of their respective employees, representatives or affiliates accepts any liability or responsibility whatsoever in respect of any discrepancies between the document distributed to you in electronic format and the hard copy version. We will provide a hard copy version to you upon request.

Restrictions: The attached Offering Memorandum is being furnished in connection with an offering exempt from registration under the Securities Act solely for the purpose of enabling a prospective investor to consider the purchase of the securities described in the Offering Memorandum. You are reminded that the information in the attached document is not complete and may be changed.

THE SECURITIES HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE SECURITIES ACT, OR THE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR OTHER JURISDICTION AND THE SECURITIES MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES, EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND APPLICABLE STATE OR LOCAL SECURITIES LAWS.

Except with respect to eligible investors in jurisdictions where such offer is permitted by law, nothing in this electronic transmission constitutes an offer or an invitation by or on behalf of either the issuer of the securities or any Initial Purchaser to subscribe for or purchase any of the securities described therein, and access has been limited so that it shall not constitute a general advertisement or general solicitation (as those terms are used in Regulation D under the Securities Act) or directed selling efforts (within the meaning of Regulation S under the Securities Act) in the United States or elsewhere.

Prohibition of sales to EEA and United Kingdom retail investors — The securities described in the attached Offering Memorandum are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area (the "**EEA**") or the United Kingdom. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); or (ii) a customer within the meaning of Directive (EU) 2016/97 (the "**Insurance Distribution Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the "**PRIIPs Regulation**") for offering or selling the securities described in the attached Offering Memorandum or otherwise making them available to retail investors in the EEA or the United Kingdom has been prepared and therefore offering or selling the securities described in the attached Offering Memorandum or otherwise making them available to any retail investor in the EEA or the United Kingdom may be unlawful under the PRIIPs Regulation.

You are reminded that you have accessed the attached Offering Memorandum on the basis that you are a person into whose possession this Offering Memorandum may be lawfully delivered in accordance with the laws of the jurisdiction in which you are located and you may not nor are you authorized to deliver or forward this document, electronically or otherwise, to any other person. If you have gained access to this transmission contrary to the foregoing restrictions, you will be unable to purchase any of the securities described therein.

Actions that You May Not Take: You should not reply by e-mail to this document, and you may not purchase any securities by doing so. Any reply e-mail communications, including those you generate by using the "Reply" function on your e-mail software, will be ignored or rejected.

THE ATTACHED OFFERING MEMORANDUM MAY NOT BE FORWARDED OR DISTRIBUTED TO ANY OTHER PERSON AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER. ANY FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS DOCUMENT IN WHOLE OR IN PART IS UNAUTHORIZED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE SECURITIES ACT OR THE APPLICABLE LAWS OF OTHER JURISDICTIONS.

You are responsible for protecting against viruses and other destructive items. Your use of this e-mail is at your own risk and it is your responsibility to take precautions to ensure that it is free from viruses and other items of a destructive nature.

STRICTLY CONFIDENTIAL

ENN 新奥

新奥能源控股有限公司
ENN Energy Holdings Limited

(incorporated with limited liability under the laws of the Cayman Islands)

(Stock Code: 2688)

US$750,000,000 2.625% Green Senior Notes Due 2030

The US$750,000,000 2.625% Green Senior Notes due 2030 (the "**Notes**") will be the unsubordinated and unsecured senior obligations of ENN Energy Holdings Limited (the "**Company**" or "**we**"). The Notes will bear interest at a rate of 2.625% per year. Interest on the Notes will accrue from September 17, 2020. Interest will be paid on the Notes semi-annually in arrears on March 17 and September 17 of each year, beginning on March 17, 2021. Unless previously repurchased, cancelled or redeemed, the Notes will mature on September 17, 2030. The Notes are being issued as "**Green Notes**" under our Green Finance Framework. See "*Green Finance Framework.*"

Pursuant to the Circular on Promoting the Reform of the Administrative System on the Issuance by Enterprises of Foreign Debt Filings and Registrations (國家發展改革委關於推進企業發行外債備案登記制管理改革的通知 (發改外資[2015]2044號)) (the "**NDRC Circular**") issued by the National Development and Reform Commission of the PRC or its local counterparts (the "**NDRC**") on September 14, 2015 which came into effect on the same day, the Company has registered the issuance of the Notes with the NDRC and obtained a certificate from NDRC on May 26, 2020 evidencing such registration and intends to provide the requisite information on the issuance of the Notes to the NDRC within 10 Registration Business Days (as defined in the Description of the Notes) after the issue date of the Notes.

The Company may redeem the Notes at any time upon the occurrence of certain tax events. In addition, the Company may, at any time and from time to time redeem the Notes on any date, in whole or in part at a price equal to, (a) in the case of the optional redemption date prior to June 17, 2030 (the date that is three months prior to the maturity date for the Notes), the greater of (1) 100% of the principal amount of the applicable Notes to be redeemed and (2) the sum of the present values of the remaining scheduled payments of principal and interest on the applicable Notes to be redeemed (not including interest accrued and unpaid to the date of redemption), discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of 12 months of 30 days each and, in the case of an incomplete month, the actual number of days elapsed) at the Adjusted Treasury Rate (as defined in the Description of the Notes) plus 50 basis points, plus accrued and unpaid interest on the applicable Notes to be redeemed, if any, to (but not including) the optional redemption date; or (b) in the case of an optional redemption date on or after June 17, 2030 (the date that is three months prior to the maturity date for the Notes), 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest, if any, to, but not including, the optional redemption date. Upon the occurrence of a Change of Control (as defined in the Description of the Notes), we must make an offer to repurchase all Notes outstanding at a purchase price equal to 101% of their principal amount, plus accrued and unpaid interest, if any, to the date of repurchase.

The Notes will rank *pari passu* with all of the Company's other existing and future unsubordinated obligations and will be effectively subordinated to its secured obligations.

Investing in the Notes involves risks. See "*Risk Factors*" beginning on page 13.

The Notes are expected to be assigned a rating of "Baa2" by Moody's Investors Service Hong Kong Limited ("**Moody's**"), "BBB" by S&P Global Ratings, a division of the S&P Global, Inc. ("**S&P**") and "BBB" by Fitch (Hong Kong) Limited ("**Fitch**"). The Company is rated "Baa2" by Moody's with stable outlook, "BBB" by S&P with stable outlook and "BBB" by Fitch with stable outlook. A rating is not a recommendation to buy, sell or hold the Notes and may be subject to suspension, reduction or withdrawal at any time. A suspension, reduction or withdrawal of the rating assigned to the Notes may adversely affect the market price of the Notes.

Application will be made to The Stock Exchange of Hong Kong Limited (the "**SEHK**") for the listing of the Notes by way of debt issues to professional investors (as defined in Chapter 37 of the Rules Governing the Listing of Securities on the SEHK and in the Securities and Futures Ordinance (Cap. 571, the Laws of Hong Kong) (together, "**Professional Investors**") only.

Notice in Hong Kong Investors: The Issuer confirms that the Notes are intended for purchase by Professional Investors only and will be listed on the SEHK on that basis. Accordingly, the Issuer confirms that the Notes are not appropriate as an investment for retail investors in Hong Kong. Investors should carefully consider the risks involved.

The SEHK has not reviewed the contents of this Offering Memorandum, other than to ensure that the prescribed form disclaimer and responsibility statements and a statement limiting distribution of this Offering Memorandum to Professional Investors only have been reproduced in this Offering Memorandum. Listing of the Notes on the SEHK is not to be taken as an indication of the commercial merits or credit quality of the Notes or the Company or quality of disclosure in this Offering Memorandum. Hong Kong Exchanges and Clearing Limited and the SEHK take no responsibility for the contents of this Offering Memorandum, make no representation as to its accuracy or completeness and expressly disclaim any liability whatsoever for any loss howsoever arising from or in reliance upon the whole or any part of the contents of this Offering Memorandum.

The Company has received an eligibility letter from the SEHK for listing of, and permission to deal in, the Notes by way of debt issues to Professional Investors only. The listing of, and permission to deal in, the Notes by way of debt issues to Professional Investors only is expected to become effective on or about September 18, 2020.

Offering Price for the Notes: 99.164% of principal amount plus accrued interest from September 17, 2020

The Notes have not been and will not be registered under the U.S. Securities Act of 1933, as amended (the "**Securities Act**"), or the securities laws of any other place. Accordingly, the Notes may not be offered or sold within the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. The Notes may be offered and sold only to (1) persons who are qualified institutional buyers ("**Qualified Institutional Buyers**") (as defined in Rule 144A under the Securities Act) purchasing for their own account or the account of a Qualified Institutional Buyer as to which the purchaser exercises sole investment discretion, in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 144A; or (2) in offshore transactions in reliance on Regulation S under the Securities Act, and in accordance with any other applicable law. Prospective purchasers are hereby notified that the seller of the Notes may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A. For a description of certain restrictions on resales and transfers, see "*Transfer Restrictions.*"

It is expected that delivery of the Notes will be made to investors in book-entry form through the facilities of the Depository Trust Company on or about September 17, 2020.

Joint Global Coordinators, Joint Bookrunners and Joint Lead Managers

HSBC **Morgan Stanley** **Citigroup** **Standard Chartered Bank**

Joint Bookrunners and Joint Lead Managers

J.P. Morgan **MUFG** **Westpac Banking Corporation**

Green Structuring Advisers

HSBC **Morgan Stanley**

Offering Memorandum dated September 10, 2020.

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IMPORTANT NOTICE

THIS OFFERING MEMORANDUM DOES NOT CONSTITUTE AN OFFER TO SELL, OR A SOLICITATION OF AN OFFER TO BUY, ANY SECURITIES IN ANY JURISDICTION TO ANY PERSON TO WHOM IT IS UNLAWFUL TO MAKE THE OFFER OR SOLICITATION IN SUCH JURISDICTION. NEITHER THE DELIVERY OF THIS OFFERING MEMORANDUM NOR ANY SALE MADE HEREUNDER SHALL UNDER ANY CIRCUMSTANCES IMPLY THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE COMPANY OR ANY OF ITS SUBSIDIARIES OR THAT THE INFORMATION SET FORTH IN THIS OFFERING MEMORANDUM IS CORRECT AS AT ANY DATE SUBSEQUENT TO THE DATE HEREOF.

This Offering Memorandum includes particulars given in compliance with the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited for the purpose of giving information with regard to us. We accept full responsibility for the accuracy of the information contained in this Offering Memorandum and confirm, having made all reasonable enquiries, that to the best of our knowledge and belief there are no other facts the omission of which would make any statement herein misleading.

We, having made all reasonable inquiries, confirm that: (i) this Offering Memorandum contains all information with respect to us, our subsidiaries and affiliates referred to in this Offering Memorandum and the Notes that is material in the context of the issue and offering of the Notes (including the information which is required by applicable laws and according to the particular nature of us and the Notes and is necessary to enable investors and their investment advisers to make an informed assessment of our assets and liabilities, financial position, profits and losses, and prospects and of the rights attaching to the Notes); (ii) the statements contained in this Offering Memorandum relating to us and our subsidiaries and our affiliates are in every material respect true and accurate and not misleading; (iii) the opinions and intentions expressed in this Offering Memorandum with regard to us and our subsidiaries and affiliates are honestly held, have been reached after considering all relevant circumstances and are based on reasonable assumptions; (iv) there are no other facts in relation to us, our subsidiaries and affiliates, or the Notes, the omission of which would, in the context of the issue and offering of the Notes, make any statement in this Offering Memorandum misleading in any material respect; (v) we have made all reasonable enquiries to ascertain such facts and to verify the accuracy of all such information and statements in this Offering Memorandum; and (vi) the statistical, industry and market related data and forward looking statements included in this Offering Memorandum (if any) are based on or derived or extracted from sources which we believe to be accurate and reliable in all material respects. We accept responsibility accordingly.

This Offering Memorandum is highly confidential. We are providing it solely for the purpose of enabling you to consider a purchase of the Notes. You should read this Offering Memorandum before making a decision whether to purchase the Notes. You must not use this Offering Memorandum for any other purpose, or disclose any information in this Offering Memorandum to any other person. The distribution of this Offering Memorandum and the offering of the Notes in certain jurisdictions may be restricted by law. Persons into whose possession this Offering Memorandum comes are required by us, The Hongkong and Shanghai Banking Corporation Limited, Morgan Stanley & Co. International plc, Citigroup Global Markets Inc., Standard Chartered Bank (the "Joint Global Coordinators"), J.P. Morgan Securities plc, MUFG Securities Asia Limited and Westpac Banking Corporation (together with the Joint Global Coordinators, the "Joint Bookrunners and Joint Lead Managers", and each a "Joint Bookrunner" or "Joint Lead Manager"), the Trustee and the Paying Agent, the Registrar or the Transfer Agent (collectively, the "Agents") to inform themselves about and to observe any such restrictions. No action is being taken to permit a public offering of the Notes or the distribution of this Offering Memorandum or any offering or publicity material relating to the Notes in any jurisdiction where action would be required for such purposes. There are restrictions on the offer, sale and resale of the Notes, and the circulation of documents relating thereto, in certain jurisdictions including, without limitation, the United States, the United Kingdom, Hong Kong, PRC, Singapore and Japan, and to persons connected therewith. For a description of certain further restrictions on offers, sales and resales of the Notes and distribution of this Offering Memorandum, see "*Plan of Distribution.*" This Offering Memorandum does not constitute an offer of, or an invitation to purchase, any of the Notes in any jurisdiction in which such offer or invitation would be unlawful. By purchasing the Notes, investors represent and agree to all of those provisions contained in that section of this Offering Memorandum.

No person has been or is authorized to give any information or to make any representation concerning us, our subsidiaries and affiliates and the Notes other than as contained in this Offering Memorandum and, if given or made, such other information or representation must not be relied upon as having been authorized by or on behalf of any of us, our subsidiaries and affiliates, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee or the Agents (or any of their respective affiliates, directors, officers, employees, representatives, agents or advisers or any person who controls any of them or their respective advisers). Neither the delivery of this Offering Memorandum nor any offering, sale or delivery made in connection with the issue of the Notes shall, under any circumstances, constitute a representation that there has been no change, or development reasonably likely to involve a change, in the affairs of us, our subsidiaries and affiliates since the date hereof or create any implication that the information contained herein is correct as at any date subsequent to the date hereof.

This Offering Memorandum does not constitute an offer of, or an invitation by or on behalf of us, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee or the Agents (or any of their respective affiliates, directors, officers, employees, representatives, agents or advisers or any person who controls any of them or their respective advisers) to subscribe for or purchase any Notes and this document may not be used for the purpose of an offer to, or a solicitation by, anyone in any jurisdiction or in any circumstances in which such offer or solicitation is not authorized or is unlawful.

This Offering Memorandum is being furnished by us in connection with the offering of the Notes exempt from registration under the Securities Act solely for the purpose of enabling a prospective investor to consider purchasing the Notes. Investors must not use this Offering Memorandum for any other purpose, make copies of any part of this Offering Memorandum or give a copy of it to any other person, or disclose any information in this Offering Memorandum to any other person. The information contained in this Offering Memorandum has been provided by us and other sources identified in this Offering Memorandum. Any reproduction or distribution of this Offering Memorandum, in whole or in part, and any disclosure of its contents or use of any information herein for any purpose other than considering an investment in the Notes offered by this Offering Memorandum is prohibited. Each offeree of the Notes, by accepting delivery of this Offering Memorandum, agrees to the foregoing.

Prohibition of sales to EEA and United Kingdom retail investors — The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area (the "EEA") or the United Kingdom. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); or (ii) a customer within the meaning of Directive (EU) 2016/97 (the "Insurance Distribution Directive"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the Notes or otherwise making them available to retail investors in the EEA or the United Kingdom has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA or the United Kingdom may be unlawful under the PRIIPs Regulation.

Singapore Securities and Futures Act Product Classification — Solely for the purposes of its obligations pursuant to sections 309B(1)(a) and 309B(1)(c) of the SFA, we have determined, and hereby notify all relevant persons (as defined in Section 309A(1) of the SFA) that the Notes are "prescribed capital markets products (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018).You are responsible for making your own examination of us and your own assessment of the merits and risks of investing in the Notes. By purchasing the Notes, you will be deemed to have acknowledged that you have made certain acknowledgements, representations and agreements as set forth under the section entitled "Plan of Distribution" below.

No representation or warranty, express or implied, is made by the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee or the Agents (or any of their respective affiliates, directors, officers, employees, representatives, agents or advisers) as to the accuracy, completeness or sufficiency of the information contained in this Offering Memorandum, and nothing contained in this Offering Memorandum is, or shall be relied upon as, a promise, representation or warranty by the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee or the Agents.

None of the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee or the Agents (or any of their respective affiliates, directors, officers, employees, representatives, agents or advisers) or any person who controls any of them or their respective advisers has independently verified the information contained in this Offering Memorandum and can give no assurance that this information is accurate, truthful or complete. Accordingly, no representation, warranty or undertaking, express or implied, is made or given and no responsibility or liability is accepted, by the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee or the Agents (or any of their respective affiliates, directors, officers, employees, agents, representatives or advisers) or any person who controls any of them or their respective advisers, as to the accuracy, completeness or sufficiency of the information contained in this Offering Memorandum or any other information supplied in connection with the Notes. Nothing contained in this Offering Memorandum is, or shall be relied upon as, a promise, representation or warranty by us, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee or the Agents (or any of their respective affiliates, directors, officers, employees, agents, representatives or advisers) or any person who controls any of them or their respective advisers.

This Offering Memorandum is not intended to provide the basis of any credit or other evaluation nor should it be considered as a recommendation by the Company, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee or the Agents that any recipient of this Offering Memorandum should purchase the Notes. Each potential purchaser of the Notes should determine for itself the relevance of the information contained in this Offering Memorandum and its purchase of the Notes should be based upon such investigations with its own tax, legal and business advisers as it deems necessary.

To the fullest extent permitted by law, none of the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee or the Agents accepts any responsibility for the contents of this Offering Memorandum or for any other statement made or purported to be made by the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee or the Agents or on any of their behalf in connection with the Company, its subsidiaries (together with the Company, the "Group"), or the Notes. Each of the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee and the Agents accordingly disclaims all and any liability whether arising in tort or contract or otherwise (save as referred to above) which it might otherwise have in respect of this Offering Memorandum or any such statement.

Listing of the Notes on the Hong Kong Stock Exchange is not to be taken as an indication of the merits of the Company or the Notes. In making an investment decision, investors must rely on their own examination of the Company and the Group and the terms of the offering, including the merits and risks involved. See "*Risk Factors*" for a discussion of certain factors to be considered in connection with an investment in the Notes.

Each person receiving this Offering Memorandum acknowledges that: no person has been authorized to give any information or to make any representation concerning the Company or the Notes (other than as contained herein) and, if given or made, any such other information or representation should not be relied upon as having been authorized by the Company, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Trustee or the Agents. Neither the delivery of this Offering Memorandum nor any offering, sale or delivery made in connection with the issue of the Notes shall, under any circumstances, constitutes a representation that there has been no material change or development reasonably likely to involve a change in the affairs of the Company since the date hereof or create any implication that the information contained herein is correct as of any date subsequent to the date hereof.

We are not, and the Joint Global Coordinators, the Joint Bookrunners and the Joint Lead Managers are not, making an offer to sell the Notes in any jurisdiction except where an offer or sale is permitted. The distribution of this Offering Memorandum and the offering of the Notes may be restricted by law in certain jurisdictions. Persons who are in possession of this Offering Memorandum are required by us and the Joint Lead Managers to inform themselves about and to observe any such restrictions. For a description of the restrictions on offers, sales and resales of the Notes and distribution of this Offering Memorandum, see "*Plan of Distribution*" below.

IN CONNECTION WITH THE ISSUE OF THE NOTES, ANY OF THE INITIAL PURCHASERS APPOINTED AND ACTING IN SUCH CAPACITY (THE "STABILIZATION MANAGER") OR ANY PERSON ACTING ON BEHALF OF THE STABILIZATION MANAGER MAY, TO THE EXTENT PERMITTED BY APPLICABLE LAWS AND DIRECTIVES, OVER-ALLOT THE NOTES OR EFFECT TRANSACTIONS WITH A VIEW TO SUPPORTING THE PRICE OF THE NOTES AT A LEVEL HIGHER THAN THAT WHICH MIGHT OTHERWISE PREVAIL, BUT IN SO DOING, THE STABILIZATION MANAGER OR ANY PERSON ACTING ON BEHALF OF THE STABILIZATION MANAGER SHALL ACT AS PRINCIPAL AND NOT AS AGENT OF THE COMPANY. HOWEVER, THERE IS NO ASSURANCE THAT THE STABILIZATION MANAGER OR ANY PERSON ACTING ON BEHALF OF THE STABILIZATION MANAGER WILL UNDERTAKE STABILIZATION ACTION. ANY STABILIZATION ACTION MAY BEGIN ON OR AFTER THE DATE ON WHICH ADEQUATE PUBLIC DISCLOSURE OF THE TERMS OF THE NOTES IS MADE AND, IF BEGUN, MAY BE ENDED AT ANY TIME, BUT IT MUST END NO LATER THAN THE EARLIER OF 30 DAYS AFTER THE ISSUE DATE OF THE NOTES AND 60 DAYS AFTER THE DATE OF THE ALLOTMENT OF THE NOTES. ANY LOSS OR PROFIT SUSTAINED AS A CONSEQUENCE OF ANY SUCH OVERALLOTMENT OR STABILIZATION SHALL BE FOR THE ACCOUNT OF THE JOINT LEAD MANAGERS.

This Offering Memorandum summarizes certain material documents and other information, and we refer you to them for a more complete understanding of what we discuss in this Offering Memorandum. In making an investment decision, you must rely on your own examination of us and the terms of the offering, including the merits and risks involved. We are not making any representation to you regarding the legality of an investment in the Notes by you under any legal, investment or similar laws or regulations. You should not consider any information in this Offering Memorandum to be legal, business or tax advice. You should consult your own professional advisors for legal, business, tax and other advice regarding an investment in the Notes.

This Offering Memorandum includes particulars given in compliance with the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules") for the purpose of giving information with regard to the Company. We reserve the right to withdraw the offering of Notes at any time, and the Joint Lead Managers reserve the right to reject any commitment to subscribe for the Notes in whole or in part and to allot to any prospective purchaser less than the full amount of the Notes sought by such purchaser. The Joint Bookrunners and the Joint Lead Managers and certain related entities may acquire for their own account a portion of the Notes.

CERTAIN DEFINITIONS, CONVENTIONS AND CURRENCY PRESENTATION

We have prepared this Offering Memorandum using a number of conventions, which you should consider when reading the information contained herein. When we use the terms “we,” “us,” “our,” the “Company,” the “Group” and words of similar import, we are referring to ENN Energy Holdings Limited itself, or to ENN Energy Holdings Limited and its consolidated subsidiaries, as the context requires.

All references in this Offering Memorandum to “U.S. dollars” and “US$” are to United States dollars; all references to “HK dollars” and “HK$” are to Hong Kong dollars; and all references to “RMB” or “Renminbi” are to Renminbi, the official currency of the PRC.

We record and publish our financial statements in Renminbi. Unless otherwise stated in this Offering Memorandum, all translations from Renminbi amounts to U.S. dollars were made at the rate of RMB7.0651 to US$1.00, the noon buying rate in New York City for cable transfers payable in Renminbi as certified for customs purposes by the Federal Reserve Bank of New York on June 30, 2020, and all translations from HK dollars into U.S. dollars were made at the rate of HK$7.7501 to US$1.00, the noon buying rate in New York City for cable transfers payable in HK dollars as certified for customs purposes by the Federal Reserve Bank of New York on June 30, 2020. All such translations in this Offering Memorandum are provided solely for your convenience and no representation is made that the Renminbi amounts referred to herein have been, could have been or could be converted into U.S. dollars or HK dollars, or vice versa, at any particular rate or at all. For further information relating to the exchange rates, see “*Exchange Rate Information.*”

In this Offering Memorandum, unless the context otherwise requires, the following terms shall have the meanings set out below.

“2011 Senior Notes” means the US$750 million principal amount of 6.00% senior notes due 2021 issued by our Company under an indenture dated May 13, 2011.

“2017 Bonds” means the US$600 million principal amount of 3.25% bonds due 2022 issued by our Company constituted by a trust deed dated July 24, 2017.

“EIT Law” means the Enterprise Income Tax Law of the PRC, as amended.

“IIT Law” means the PRC Individual Income Tax Law of the PRC, as amended.

“%” means a percentage of a specified amount.

“m^3” means cubic meter(s).

References to the “PRC” and “China” are to the People’s Republic of China and, for the purposes of this Offering Memorandum, do not include the Hong Kong Special Administrative Region, the Macau Special Administrative Region or Taiwan. “PRC government” means the central government of the PRC, including all political subdivisions (including provincial, municipal and other regional or local governmental entities) and instrumentalities thereof.

References in this Offering Memorandum to accounting periods are based on our Company’s fiscal year, which ends on December 31.

In this Offering Memorandum, because certain amounts have been rounded, totals of columns or rows of numbers in tables may not be equal to the apparent total of the individual items, and actual numbers may differ from those contained herein due to rounding.

Facts and statistics in this Offering Memorandum relating to global economy and the relevant industry are derived from publicly available sources. While the Company has taken reasonable care to ensure that the facts and statistics presented are accurately reproduced from such sources, they have not been independently verified by any of the Company, the Joint Global Coordinators, the Joint Bookrunners and the Joint Lead Managers, the Trustee, the Agents or their respective advisors and, therefore, neither the Company nor such parties make any representation as to the accuracy of such facts and statistics. Due to possibly flawed or ineffective calculation and collection methods and other problems, the facts and statistics herein may be inaccurate or may not be comparable to facts and statistics produced for other economies and should not be unduly relied upon. Further, the Company cannot assure investors that they are stated or compiled on the same basis or with the same degree of accuracy as may be the case elsewhere.

The English names of the PRC nationals, entities, departments, facilities, laws, regulations, certificates, titles and the like are translations of their Chinese names and are included for identification purposes only.

Unless otherwise indicated, all references in this Offering Memorandum to "Description of the Notes" are to the terms and conditions governing the Notes set out in "*Description of the Notes*" (the "Description of the Notes").

FORWARD-LOOKING STATEMENTS

This Offering Memorandum includes "forward-looking statements." All statements other than statements of historical fact contained in this Offering Memorandum, including, without limitation, those regarding our future financial position and results of operations, strategy, plans, objectives, goals and targets, future developments in the markets where we participate or are seeking to participate, and any statements preceded by, followed by or that include the words "believe," "expect," "aim," "intend," "will," "may," "anticipate," "seek," "should," "estimate," "target" or similar expressions or the negative thereof, are forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties and other factors, some of which are beyond our control, which may cause our actual results, performance or achievements, or industry results to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These forward- looking statements are based on numerous assumptions regarding our present and future business strategies and the environment in which we will operate in the future. Important factors that could cause our actual results, performance or achievements to differ materially from those in the forward-looking statements include, among others, the following:

- general economic conditions, including those related to the natural gas industry, the PRC, and the jurisdictions in which we operate our business;
- government regulations, restrictions and approval processes in the jurisdictions in which we operate our business, including the PRC and local government's measures to curb air pollution and their promotion of the natural gas industry;
- competitive conditions and our ability to compete under those conditions;
- demand for natural gas over alternative fuels;
- our ability to implement our business and operating strategies;
- our ability to expand and manage our growth, both within China and abroad;
- our marketing and sales efforts and new business initiatives;
- fluctuations in currency exchange rates;
- supplier issues, including, but not limited to, variations in price, available quantity or delivery;
- possible disruptions to commercial activities due to natural and human-induced disasters, including, but not limited to, floods, earthquakes, epidemics, terrorist attacks and armed conflict; and
- those other risks identified in the "*Risk Factors*" section of this Offering Memorandum.

Any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time and it is not possible for us to predict which will arise. In addition, we cannot access the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

NON-GAAP FINANCIAL MEASURES

We use adjusted EBITDA to provide additional information about our operating performance. We calculate adjusted EBITDA by adding/(subtracting) finance costs, depreciation and amortization expenses and other (gains)/losses to profit before tax. Adjusted EBITDA is not a standard measure under Hong Kong Financial Reporting Standards ("HKFRS"). Adjusted EBITDA is a widely used financial indicator of a company's ability to incur and service debt. Adjusted EBITDA should not be considered in isolation or construed as an alternative to cash flows, profit attributable to owners of the Company or any other measure of performance or as an indicator of our operating performance, liquidity, profitability or cash flows generated by operating, investing or financing activities. Adjusted EBITDA does not account for taxes, finance costs or depreciation and amortization expenses. In evaluating adjusted EBITDA, we believe that investors should consider, among other things, the components of adjusted EBITDA such as revenue and operating expenses and the amount by which adjusted EBITDA exceeds capital expenditures and other charges. We have included adjusted EBITDA herein because we believe it is a useful supplement to cash flow data as a measure of our performance and our ability to generate cash from operations to cover debt service and taxes. Adjusted EBITDA presented herein may not be comparable to similarly titled measures presented by other companies. Investors should not compare our adjusted EBITDA to adjusted EBITDA presented by other companies because not all companies use the same definition. The following table provides a reconciliation of profit before tax, the most relevant HKFRS term, to adjusted EBITDA:

	Year ended December 31,				**Six months ended June 30,**		
	2017	**2018**	**2019**		**2019**	**2020**	
	RMB million	*RMB million*	*RMB million*	*US$ million*	*RMB million*	*RMB million*	*US$ million*
Profit before tax	5,190	5,601	8,841	1,251	5,003	4,074	577
Add finance costs	552	637	727	103	375	320	45
Add depreciation and amortization	1,118	1,286	1,784	253	834	1,026	145
Add/(Less) other losses /(gains)	895	1,634	(644)	(91)	(793)	234	33
Adjusted EBITDA	7,755	9,158	10,708	1,516	5,419	5,654	800

PRESENTATION OF FINANCIAL INFORMATION

Our consolidated financial statements were prepared in accordance with HKFRS, which differ in certain respects from generally accepted accounting principles in certain other jurisdictions. Unless the context otherwise requires, financial information in this Offering Memorandum is presented on a consolidated basis.

Our audited consolidated financial statements as of and for the year ended December 31, 2018 (the "2018 Audited Consolidated Financial Statements") were prepared reflecting the adoption of HKFRS 9 and HKFRS 15, both of which took effect from January 1, 2018. Please refer to Note 3 of the 2018 Audited Consolidated Financial Statements for a discussion on the impact of the adoption of HKFRS 9 and HKFRS 15. As we have applied the transitional provisions set out in HKFRS 9 and the modified retrospective approach set out in HKFRS 15, each with the date of initial application on January 1, 2018 and without restating the corresponding figures for the prior period before January 1, 2018, our consolidated financial information as of and for the year ended December 31, 2017 may not be directly comparable to our consolidated financial information after January 1, 2018, including our consolidated financial information as of and for the years ended December 31, 2018 and 2019 and the six months ended June 30, 2019 and 2020. Investors must, therefore, exercise caution when making comparisons between any financial figures after January 1, 2018, including our consolidated financial statements as of and for the years ended December 31, 2018 and 2019 and the six months ended June 30, 2019 and 2020, and our consolidated financial information prior to January 1, 2018 and when evaluating the Group's financial condition and results of operations.

Our audited consolidated financial statements as of and for the year ended December 31, 2019 (the "2019 Audited Consolidated Financial Statements") were prepared reflecting the adoption of HKFRS 16, which took effect from January 1, 2019. Please refer to Note 3 of the 2019 Audited Consolidated Financial Statements for a discussion of the impact of the adoption of HKFRS 16. As we have applied the modified retrospective approach set out in HKFRS 16 with the date of initial application of January 1, 2019 and without restating the corresponding figures for the prior periods before January 1, 2019, our consolidated financial information as of and for the years ended December 31, 2017 and 2018 may not be directly comparable to our consolidated financial information after January 1, 2019, including our consolidated financial information as of and for the year ended December 31, 2019 and the six months ended June 30, 2019 and 2020. Investors must, therefore, exercise caution when making comparisons between any financial figures after January 1, 2019, including our consolidated financial statements as of and for the year ended December 31, 2019 and the six months ended June 30, 2019 and 2020, and our consolidated financial information prior to January 1, 2019 and when evaluating the Group's financial condition and results of operations.

Our interim condensed consolidated financial statements as of and for the six months ended June 30, 2020 (the "Interim Condensed Consolidated Financial Statements") were prepared reflecting the adoption of hedge accounting in accordance with HKFRS 9. Please refer to Note 2 of the Interim Condensed Consolidated Financial Statements for a discussion of the adoption of hedge accounting. The Interim Condensed Consolidated Financial Statements were prepared in accordance with Hong Kong Accounting Standard 34 "Interim Financial Reporting". As the adoption of hedge accounting was prospective and we did not restate the corresponding figures for the prior periods before January 1, 2020, our interim condensed financial statements as of and for the six months ended June 30, 2019 may not be directly comparable to our interim condensed consolidated financial information after January 1, 2020, including our Interim Condensed Consolidated Financial Statements.

CAYMAN ISLANDS DATA PROTECTION

The Company has certain duties under the Data Protection Law, 2017 of the Cayman Islands (the "DPL") based on internationally accepted principles of data privacy.

Prospective investors should note that, by virtue of making investments in the Notes and the associated interactions with the Company and its affiliates and/or delegates, or by virtue of providing the Company with personal information on individuals connected with the investor (for example directors, trustees, employees, representatives, shareholders, investors, clients, beneficial owners or agents) such individuals will be providing the Company and its affiliates and/or with certain personal information which constitutes personal data within the meaning of the DPL. The Company shall act as a data controller in respect of this personal data and its affiliates and/or delegates may act as data processors (or data controllers in their own right in some circumstances).

By investing in the Notes, the Noteholders shall be deemed to acknowledge that they have read in detail and understood the Privacy Notice set out below and that such Privacy Notice provides an outline of their data protection rights and obligations as they relate to the investment in the Notes.

Oversight of the DPL is the responsibility of the Ombudsman's office of the Cayman Islands. Breach of the DPL by the Company could lead to enforcement action by the Ombudsman, including the imposition of remediation orders, monetary penalties or referral for criminal prosecution.

Privacy Notice

Introduction

The purpose of this notice is to provide Noteholders with information on the Company's use of their personal data in accordance with the DPL.

In the following discussion, "Company" refers to the Company and its affiliates and/or delegates, except where the context requires otherwise.

Investor Data

By virtue of making an investment in the Company and a Noteholder's associated interactions with the Company (including any subscription (whether past, present of future), including the recording of electronic communications or phone calls where applicable) or by virtue of a Noteholder otherwise providing the Company with personal information on individuals connected with the Noteholder as an investor (for example directors, trustees, employees, representatives, shareholders, investors, clients, beneficial owners or agents), the Noteholder will provide the Company with certain personal information which constitutes personal data within the meaning of the DPL ("Investor Data"). The Company may also obtain Investor Data from other public sources. Investor Data includes, without limitation, the following information relating to a Noteholder and/or any individuals connected with a Noteholder as an investor: name, residential address, email address, contact details, corporate contact information, signature, nationality, place of birth, date of birth, tax identification, credit history, correspondence records, passport number, bank account details, source of funds details and details relating to the Noteholder's investment activity.

In the Company's use of Investor Data, the Company will be characterized as a "data controller" for the purposes of the DPL. The Company's affiliates and delegates may act as "data processors" for the purposes of the DPL.

Who this Affects

If a Noteholder is a natural person, this will affect such Noteholder directly. If a Noteholder is a corporate investor (including, for these purposes, legal arrangements such as trusts or exempted limited partnerships) that provides the Company with Investor Data on individuals connected to such Noteholder for any reason in relation to such Noteholder's investment with the Company, this will be relevant for those individuals and such Noteholder should transmit the content of this Privacy Notice to such individuals or otherwise advise them of its content.

How the Company May Use a Noteholder's Personal Data

The Company, as the data controller, may collect, store and use Investor Data for lawful purposes, including, in particular:

(i) where this is necessary for the performance of the Company's rights and obligations under any subscription agreements or purchase agreements;

(ii) where this is necessary for compliance with a legal and regulatory obligation to which the Company is subject (such as compliance with anti-money laundering and FATCA/CRS requirements); and/or

(iii) where this is necessary for the purposes of the Company's legitimate interests and such interests are not overridden by the Noteholder's interests, fundamental rights or freedoms.

Additionally, the authorized affiliates and/or delegates of the Company may use Investor Data, for example to provide their services to the Company or to discharge the legal or regulatory requirements that apply directly to them or in respect of which the Company relies upon them, but such use of Investor Data by the affiliates and/or delegates will always be compatible with at least one of the aforementioned purposes for which we process Investor Data.

Should the Company wish to use Investor Data for other specific purposes (including, if applicable, any purpose that requires a Noteholder's consent), the Company will contact the applicable Noteholders.

Why the Company May Transfer a Noteholder's Personal Data

In certain circumstances the Company and/or its authorized affiliates or delegates may be legally obliged to share Investor Data and other information with respect to a Noteholder's interest in the Company with the relevant regulatory authorities such as the Cayman Islands Monetary Authority or the Tax Information Authority. They, in turn, may exchange this information with foreign authorities, including tax authorities.

The Company anticipates disclosing Investor Data to the Administrator and others who provide services to the Company and their respective affiliates (which may include certain entities located outside the Cayman Islands or the European Economic Area), who will process a Noteholder's personal data on the Company's behalf.

The Data Protection Measures the Company Takes

Any transfer of Investor Data by the Company or its duly authorized affiliates and/or delegates outside of the Cayman Islands shall be in accordance with the requirements of the DPL.

The Company and its duly authorized affiliates and/or delegates shall apply appropriate technical and organizational information security measures designed to protect against unauthorized or unlawful processing of Investor Data, and against accidental loss or destruction of, or damage to, Investor Data.

The Company shall notify a Noteholder of any Investor Data breach that is reasonably likely to result in a risk to the interests, fundamental rights or freedoms of either such Noteholder or those data subjects to whom the relevant Investor Data relates.

SUMMARY

The summary below is only intended to provide a limited overview of information described in more detail elsewhere in this Offering Memorandum. As it is a summary, it does not contain all of the information that may be important to investors and terms defined elsewhere in this Offering Memorandum shall have the same meanings when used in this Summary. Prospective investors should therefore read this Offering Memorandum in its entirety.

OVERVIEW

We are one of the largest privately-owned gas operators and clean energy distributors in China. Our principal business is the sale and distribution of piped gas, LNG and other multi-energy products, and the investment in, and the constructions, operation and management of, gas pipeline infrastructure, vehicle/ship refueling stations and integrated energy projects. We also conduct energy trading business and value added business, including the sales of gas-related appliances and the provision of repair, maintenance and energy management services that assist our customers in optimizing their energy usage.

We commenced operations in 1993 and have since developed into one of the leading privately-owned gas operators in the PRC. As of June 30, 2020, we had a total of 229 operational locations with a total connectable urban population of 107,573,000 in China. We operate our piped gas distribution infrastructure on an exclusive basis, typically for periods ranging from 25 to 30 years, in cities and urban areas located in 22 provinces, municipalities and autonomous regions in China.

We typically apply for and obtain exclusive rights from the local governments in China to distribute piped gas. We may also acquire exclusive rights by entering into joint ventures with existing local piped gas distributors . In addition, we construct and maintain city piped gas networks in locations where we have acquired exclusive rights through the above-mentioned means to supply piped gas. We charge construction and installation fees from property developers, residential customers and C/I customers according to local government's regulations. We receive recurring gas usage charges from connected customers based on the tariffs negotiated and determined within the price cap set by the local governments.

We intend to grow organically by increasing the penetration rates and the number of connected customers for our existing operational locations while continuing to develop new projects and expanding our concessions in China (including, without limitation, to add more operational locations and to acquire certain industrial park projects close to the existing operational locations), with a particular focus on the commercial and industrial zones of emerging cities. In 2017, 2018, 2019 and the six months ended June 30, 2020, the number of city-gas projects under our management increased by 12, 15, 30 and 12, respectively, in China. As the projects in our operational locations continue to mature, we have become less reliant on one-time gas construction and installation fees, while sales of piped gas have increased as a proportion of our revenue, creating a more stable source of recurring revenue.

Apart from our focus on city-gas projects, we adhere to the principle of integrated energy development, explore and utilize the most competitive resources based on different local conditions, and develop integrated energy projects. As of June 30, 2020 we had 108 integrated energy projects in operation, serving customers including airports, railway stations, industrial parks and municipal areas, coupled with 23 integrated energy projects under construction, the sales of integrated energy including steam, cooling, heating, and electricity is expected to reach 34 billion kWh upon full operation over the next few years. With the direction to develop integrated energy business, we will be able to further diversify our business risks and explore more business opportunities for energy trading gas, as well as value added business.

For the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, our revenue was approximately RMB48,269 million, RMB60,698 million, RMB70,183 million, RMB35,344 million and RMB31,543 million, respectively, our total net assets was approximately RMB20,217 million, RMB25,554 million, RMB31,020 million, RMB28,011 million and RMB31,947 million, respectively, and our net profit was approximately RMB3,673 million, RMB3,818 million, RMB6,861 million, RMB3,945 million and RMB3,165 million, respectively.

Our shares were listed on the Growth Enterprise Market on May 10, 2001 and were transferred to the Main Board of the Hong Kong Stock Exchange (stock code: 2688) on June 3, 2002.

COMPETITIVE STRENGTHS

We believe that our position as a leading natural gas distributor in China is largely attributed to the following competitive strengths:

- well-positioned in the fast-growing natural gas market in China driven by China's environmental policies;
- strategic operational locations with strong growth potential;
- diversified business structure and customer base;
- access to LNG receiving terminal for diversified and competitive gas sources;
- clear and steady expansion strategy; and
- proven track record and experienced management team with strong execution capability.

STRATEGIES

We intend to achieve our strategic objectives by:

- promoting sustained and rapid growth of the natural gas business;
- capitalizing the value of our pipeline assets;
- active development of our value added business; and
- steady expansion of our integrated energy business.

THE OFFERING

The following is a brief summary of the terms of this offering and is qualified in its entirety by the remainder of this offering memorandum. For a more complete description of the terms of the Notes, see "Description of the Notes" in this offering memorandum. Terms used in this summary and not otherwise defined shall have the meanings given to them in "Description of the Notes."

Company	ENN Energy Holdings Limited, a company incorporated with limited liability on July 20, 2000 in the Cayman Islands under the Companies Law (Cayman Company No. 102544)
Notes Offered	US$750,000,000 in aggregate principal amount of 2.625% senior notes due 2030
Issue Price	99.164% of principal amount, plus accrued interest from September 17, 2020, to the issue date
Maturity Date	September 17, 2030
Interest Payment Dates	March 17 and September 17, commencing March 17, 2021
Interest	The Notes will bear interest from September 17, 2020 at the rate of 2.625% per annum, payable semi-annually in arrears from March 17, 2021. Interest will be calculated on the basis of a 360-day year, consisting of twelve 30-day months.
Further Issues	The Notes will be issued in an initial aggregate principal amount of US$750,000,000. The Company may, however, from time to time, without the consent of the holders of the Notes, create and issue, pursuant to the Indenture, additional notes, having the same terms and conditions under the Indenture as the previously outstanding Notes in all respects, except for issue date, issue price and amount of the first payment of interest thereon, and to the extent necessary, certain temporary securities law transfer restrictions. Additional notes issued may be consolidated with and form a single series with the previously outstanding Notes; provided, however, that such additional notes may have the same CUSIP, ISIN, Common Code or other identifying number as the outstanding Notes only if such additional notes are fungible with such Notes for U.S. federal income tax purposes, prior to the additional notes being assigned the same CUSIP, ISIN, Common Code or other identifying number.
Ranking	The Notes will constitute direct, unsecured and unsubordinated obligations of the Company ranking *pari passu*, without any preference or priority of payment among themselves, with all other unsecured and unsubordinated indebtedness of the Company (except obligations preferred by applicable law).

Additional Amounts	In the event that withholding taxes are imposed by a Relevant Taxing Jurisdiction in respect of payments pursuant to the Notes, the Company will, subject to certain exceptions, pay such Additional Amounts as will result, after deduction or withholding of such taxes, in receipt by each holder of such amounts as would have been received by such holder in respect of the Notes, as applicable, had no deduction or withholding been required. See "*Description of the Notes — Additional Amounts*."
Green Notes	The Notes are being issued as "Green Notes" under the Green Finance Framework. See "*Green Finance Framework*."
Final Redemption	Unless previously redeemed or purchased and cancelled, the Notes will be redeemed at their principal amount on September 17, 2030.
Redemption for Taxation Reasons	The Notes may be redeemed at the option of the Company in whole, but not in part, at any time at their principal amount, (together with any interest accrued to the date fixed for redemption), in the event of certain changes affecting taxes of a Relevant Jurisdiction, as further described in "*Description of the Notes — Redemption — Optional Tax Redemption*."
Redemption upon Occurrence of a Change of Control	Following the occurrence of a Change of Control, the Holder of any Note will have the right, at such Holder's option, to require the Company to redeem all, but not some only, of such Holder's Notes at 101% of their principal amount, together in each case with accrued interest, as further described in "*Description of the Notes — Redemption — Redemption upon a Change of Control*."
Redemption at the Option of the Company	The Company may, at any time and from time to time redeem the Notes on any date, in whole or in part at a price equal to, (a) in the case of the optional redemption date prior to June 17, 2030 (the date that is three months prior to the maturity date for the Notes), the greater of (1) 100% of the principal amount of the applicable Notes to be redeemed and (2) the sum of the present values of the remaining scheduled payments of principal and interest on the applicable Notes to be redeemed (not including interest accrued and unpaid to the date of redemption), discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of 12 months of 30 days each and, in the case of an incomplete month, the actual number of days elapsed) at the Adjusted Treasury Rate (as defined in the Description of the Notes) plus 50 basis points, plus accrued and unpaid interest on the applicable Notes to be redeemed, if any, to (but not including) the optional redemption date; or (b) in the case of an optional redemption date on or after June 17, 2030 (the date that is three months prior to the maturity date for the Notes), 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest, if any, to, but not including, the optional redemption date, as further described in "*Description of the Notes — Redemption — Optional Redemption*."

Transfer Restrictions	The Notes have not been registered under the Securities Act, any state securities laws in the United States or the securities laws of any other jurisdiction. Unless they are registered, the Notes may not be offered or sold except pursuant to an exemption from or in a transaction not subject to the registration requirements of the Securities Act, applicable state securities laws or the applicable securities laws of any other jurisdiction. See "*Transfer Restrictions.*"
Use of Proceeds	See "*Use of Proceeds.*"
Governing Law	The Notes and the Indenture will be governed by, and construed in accordance with, the laws of the State of New York.
Denomination, Form and Registration	The Notes will be issued in minimum denominations of US$200,000 and integral multiples of US$1,000 in excess thereof. The Notes offered in the United States to Qualified Institutional Buyers in reliance on Rule 144A will be represented by one or more permanent global notes in fully registered form without interest coupons deposited with the custodian for, and registered in the name of, Cede & Co., as nominee of The Depository Trust Company ("DTC").
	The Notes offered outside the United States in reliance on Regulation S will be represented by one or more global notes in fully registered form without interest coupons deposited with the custodian for, and registered in the name of, Cede & Co., as nominee of DTC for the respective accounts of Euroclear Bank SA/NV, as operator of the Euroclear System ("Euroclear"), and Clearstream Banking, S.A. ("Clearstream").
	DTC will credit the account of each of its participants, including Euroclear and Clearstream, with the principal amount of the Notes being purchased by or through such participant. Beneficial interests in the global notes will be shown on, and transfers thereof will be effected only through, records maintained by DTC and its direct and indirect participants, including Euroclear and Clearstream.
Ratings	The Notes are expected to be assigned a rating of "Baa2" by Moody's, a rating of "BBB" by S&P and a rating of "BBB" by Fitch. The Company is rated "Baa2" by Moody's with stable outlook, "BBB" by S&P with stable outlook, and "BBB" by Fitch with stable outlook. These ratings do not constitute a recommendation to buy, sell or hold the Notes and may be subject to suspension, reduction or withdrawal at any time by Moody's, S&P or Fitch. Each of Moody's, S&P and Fitch is a licensed corporation under the SFO to conduct type 10 (providing credit rating services) regulated activities as defined under the SFO.

Risk Factors	See "*Risk Factors*" and the other information in this offering memorandum for a discussion of factors that should be carefully considered before deciding to invest in the Notes.
Listing	Application is expected to be made to the SEHK for the listing of, and permission to deal in, the Notes by way of debt issues to Professional Investors only.
Trustee	HSBC Bank USA, National Association.
Principal Paying Agent, Registrar and Transfer Agent	HSBC Bank USA, National Association.

SUMMARY CONSOLIDATED FINANCIAL INFORMATION AND OTHER DATA

The following table presents our summary consolidated financial information and other data. The summary consolidated financial information as of and for the years ended December 31, 2017, 2018 and 2019 has been derived from our audited consolidated financial statements as of and for the years ended December 31, 2017, 2018 and 2019 (the "Company's Audited Financial Statements"). The summary consolidated financial information as of June 30, 2020 and for the six months ended June 30, 2019 and June 30, 2020 has been derived from our unaudited but reviewed condensed consolidated financial statements as of and for the six months ended June 30, 2020 (the "Company's Unaudited Interim Financial Statements," and together with the Company's Audited Financial Statements, the "Company's Financial Statements"). The Company's Audited Financial Statements were prepared and presented in accordance with HKFRS and have been audited by Deloitte Touche Tohmatsu, the independent certified public accountants of the Company. The Company's Unaudited Interim Financial Statements were prepared and presented in accordance with HKFRS and have been reviewed by Deloitte Touche Tohmatsu. The Company's Financial Statements are publicly available and can be accessed from the Company's website.

With respect to the Unaudited Interim Financial Statements, Deloitte Touche Tohmatsu has applied limited procedures in accordance with Hong Kong Standard on Review Engagements 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the HKICPA for a review of such information. However, as stated in their report, they did not audit or express an opinion on the interim financial information. Accordingly, the degree of reliance on their report on such information should be restricted in light of the limited nature of the review procedures applied.

The Company's Unaudited Interim Financial Statements may not provide the same quality of information associated with information that has been subject to an audit. Potential purchasers must exercise caution when using such data to evaluate the Group's financial condition and results of operations. None of the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers nor any of their directors, officers, employees, representatives, agents, advisers or affiliates makes any representation or warranty, express or implied, regarding the sufficiency of such financial information for an assessment of, and potential investors must exercise caution when using such data to evaluate the Group's financial condition, results of operations and results. The Company's Unaudited Interim Financial Statements should not be taken as an indication of the expected financial condition or results of operations of the Group for the full financial year ending December 31, 2020 and they are not comparable to the financial information for the years ended December 31, 2017, 2018 and 2019.

Our financial statements have been prepared and presented in accordance with HKFRS, which differ in certain respects from generally accepted accounting principles in other jurisdictions.

The summary financial data below should be read in conjunction with, and is qualified in its entirety be reference to, the Company's Financial Statements and the notes thereto included elsewhere in this Offering Memorandum.

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME DATA

	Year ended December 31,				Six months ended June 30,		
	2017	2018	2019		2019	2020	
	RMB million (audited)	*RMB million (audited)*	*RMB million (audited)*	*US$ million*	*RMB million (unaudited)*	*RMB million (unaudited)*	*US$ million*
Revenue	48,269	60,698	70,183	9,934	35,344	31,543	4,465
Cost of sales	(39,930)	(51,188)	(58,918)	(8,339)	(29,746)	(25,941)	(3,672)
Gross profit	8,339	9,510	11,265	1,595	5,598	5,602	793
Other income	676	949	861	122	373	421	60
Other gains and losses	(895)	(1,634)	644	91	793	(234)	(33)
Distribution and selling expenses	(635)	(790)	(976)	(138)	(421)	(435)	(62)
Administrative expenses	(2,377)	(2,673)	(3,099)	(439)	(1,397)	(1,392)	(198)
Share of results of associates	129	275	326	46	190	166	24
Share of results of joint ventures	505	601	547	77	242	266	38
Finance costs	(552)	(637)	(727)	(103)	(375)	(320)	(45)
Profit before tax	5,190	5,601	8,841	1,251	5,003	4,074	577
Income tax expense	(1,517)	(1,783)	(1,980)	(280)	(1,058)	(909)	(129)
Profit for the year/period	3,673	3,818	6,861	971	3,945	3,165	448
Other comprehensive income (expense)							
Items that will not be reclassified subsequently to profit or loss:							
Gain on revaluation of properties arising from the transfer to investment properties	4	6	3	0	—	—	—
Fair value gain/(loss) on equity instruments at fair value through other comprehensive income ("FVTOCI")	—	(7)	(1)	(0)	—	63	9
	4	(1)	2	0	—	63	9
Items that may be reclassified to profit or loss:							
Exchange differences arising on translating foreign operations	(88)	—	—	—	—	(1)	(0)
Fair value loss on available-for-sale financial assets	(46)	—	—	—	—	—	—
Release of exchange reserve to profit or loss upon disposal/ deregistration of subsidiaries	—	(40)	3	0	3	—	—
Hedging instruments for cash flow hedges	—	—	—	—	—	(230)	(33)
	(134)	(40)	3	0	3	(231)	(33)
Other comprehensive (expense) income for the year/period	(130)	(41)	5	1	3	(168)	(24)
Total comprehensive income for the year/period	3,543	3,777	6,866	972	3,948	2,997	424

	Year ended December 31,				Six months ended June 30,		
	2017	2018	2019		2019	2020	
	RMB million (audited)	*RMB million (audited)*	*RMB million (audited)*	*US$ million*	*RMB million (unaudited)*	*RMB million (unaudited)*	*US$ million*
Profit for the year/period attributable to:							
Owners of the Company	2,802	2,818	5,670	802	3,362	2,693	381
Non-controlling interests	871	1,000	1,191	169	583	472	67
Profit for the year/period	3,673	3,818	6,861	971	3,945	3,165	448
Total comprehensive income for the year/period attributable to:							
Owners of the Company	2,672	2,778	5,674	803	3,365	2,525	357
Non-controlling interests	871	999	1,192	169	583	472	67
Total comprehensive income for the year/period	3,543	3,777	6,866	972	3,948	2,997	424
Earnings per share	*RMB*	*RMB*	*RMB*	*US$*	*RMB*	*RMB*	*US$*
Basic	2.59	2.56	5.05	0.71	2.99	2.40	0.34
Diluted	2.59	2.56	5.04	0.71	2.99	2.39	0.34
Other financial data							
Adjusted EBITDA(1)	7,755	9,158	10,708	1,516	5,419	5,654	800
Adjusted EBITDA margin(2)	16.1%	15.1%	15.3%	15.3%	15.3%	17.9%	17.9%
Total Debt(3)	18,067	20,249	19,145	2,710	19,181	20,720	2,933
Total Debt(3)/Adjusted EBITDA	2.3x	2.2x	1.8x	1.8x	3.5x	3.7x	3.7x
Adjusted EBITDA/finance costs	14.0x	14.4x	14.7x	14.7x	14.5x	17.7x	17.7x
Capital expenditures	5,117	8,096	8,922	1,263	3,384	2,860	405

Notes:

(1) We calculate adjusted EBITDA by adding/(subtracting) finance costs, depreciation and amortization expenses and other (gains)/losses to profit before tax. Adjusted EBITDA is not a standard measure under HKFRS. Adjusted EBITDA is a widely used financial indicator of a company's ability to incur and service debt. Adjusted EBITDA should not be considered in isolation or construed as an alternative to cash flows, profit attributable to owners of the Company or any other measure of performance or as an indicator of our operating performance, liquidity, profitability or cash flows generated by operating, investing or financing activities. Adjusted EBITDA does not account for taxes, finance costs or depreciation and amortization expenses. In evaluating adjusted EBITDA, we believe that investors should consider, among other things, the components of adjusted EBITDA such as revenue and operating expenses and the amount by which adjusted EBITDA exceeds capital expenditures and other charges. We have included adjusted EBITDA herein because we believe it is a useful supplement to cash flow data as a measure of our performance and our ability to generate cash from operations to cover debt service and taxes. Adjusted EBITDA presented herein may not be comparable to similarly titled measures presented by other companies. Investors should not compare our adjusted EBITDA to adjusted EBITDA presented by other companies because not all companies use the same definition. The following table provides a reconciliation of profit before tax, the most relevant HKFRS term, to adjusted EBITDA:

(2) Adjusted EBITDA margin is calculated by dividing adjusted EBITDA by revenue.

(3) Total debt includes all long-term and short-term bank loans, corporate bonds, senior notes, convertible bonds and unsecured bonds.

	Year ended December 31,				Six months ended June 30,		
	2017	2018	2019		2019	2020	
	RMB million	*RMB million*	*RMB million*	*US$ million*	*RMB million*	*RMB million*	*US$ million*
Profit before tax	5,190	5,601	8,841	1,251	5,003	4,074	577
Add finance costs	552	637	727	103	375	320	45
Add depreciation and amortization	1,118	1,286	1,784	253	834	1,026	145
Add/(Less) other losses/(gains) .	895	1,634	(644)	(91)	(793)	234	33
Adjusted EBITDA	7,755	9,158	10,708	1,516	5,419	5,654	800

SUMMARY CONSOLIDATED STATEMENT OF FINANCIAL POSITION DATA

	As of December 31,				As of June 30,	
	2017	2018	2019		2020	
	RMB million (audited)	*RMB million (audited)*	*RMB million (audited)*	*US$ million*	*RMB million (unaudited)*	*US$ million*
Non-current Assets						
Property, plant and equipment	25,490	31,073	37,955	5,372	39,369	5,572
Right-of-use assets	—	—	2,185	309	2,117	300
Prepaid lease payments	1,262	1,401	—	—	—	—
Investment properties	246	265	268	38	268	38
Goodwill	192	2,248	2,379	337	2,427	343
Intangible assets	1,681	3,037	4,175	591	4,302	609
Interests in associates	1,505	3,049	3,308	468	3,532	500
Interests in joint ventures	3,929	3,620	3,841	544	4,137	585
AFS financial assets	4,578	—	—	—	—	—
Other receivables	183	145	48	7	35	5
Financial assets at fair value through profit or loss (“FVTPL”)	5	4,845	5,169	732	6,060	858
Equity instruments at FVTOCI	—	112	123	17	200	28
Amounts due from associates	278	353	345	49	6	1
Amounts due from joint ventures	674	68	12	2	25	4
Deferred tax assets	941	1,159	1,292	183	1,292	183
Deposits paid for investments	35	190	15	2	86	12
Prepayment and deposits paid for acquisition of property, plant and equipment, land use rights and operation rights	104	171	169	24	145	21
Restricted bank deposits	486	639	446	63	442	63
Total non-current assets	41,589	52,375	61,730	8,738	64,443	9,122
Current assets						
Inventories	744	1,331	1,169	165	1,359	192
Trade and other receivables	6,068	8,560	7,492	1,060	7,647	1,082
Contract assets	—	612	757	107	673	95
Prepaid lease payments	37	39	—	—	—	—
Financial assets at FVTPL	4	735	361	51	910	129
AFS financial assets	528	—	—	—	—	—
Amounts due from customers for contract work	553	—	—	—	—	—
Amounts due from associates	367	523	575	81	929	131
Amounts due from joint ventures	943	1,523	1,058	150	1,043	148
Amounts due from related companies	112	231	164	23	211	30
Restricted bank deposits	241	62	566	80	430	61
Cash and cash equivalents	7,972	7,923	7,373	1,044	7,938	1,124
Total current assets	17,569	21,539	19,515	2,761	21,140	2,992
Assets classified as held for sale	57	—	—	—	—	—

	As of December 31,				As of June 30,	
	2017	2018	2019		2020	
	RMB million *(audited)*	*RMB million* *(audited)*	*RMB million* *(audited)*	*US$ million*	*RMB million* *(unaudited)*	*US$ million*
Current liabilities						
Trade and other payables	11,217	7,103	7,635	1,081	6,825	966
Contract liabilities	—	10,490	12,613	1,785	12,359	1,749
Deferred income	243	25	33	5	34	5
Amounts due to customers for contract work	2,134	—	—	—	—	—
Amounts due to associates	282	351	189	27	224	32
Amounts due to joint ventures	1,677	1,693	785	111	1,032	146
Amounts due to related companies	642	793	1,060	150	761	108
Taxation payables	982	782	962	136	862	122
Dividend payable	—	—	—	—	1,719	243
Lease liabilities	—	—	100	14	92	13
Bank and other loans — due within one year	1,737	8,621	7,495	1,061	8,041	1,138
Senior notes	—	—	—	—	2,579	365
Corporate bonds	2,996	2,497	—	—	—	—
Unsecured bonds	—	443	—	—	—	—
Convertible bonds at FVTPL	3,635	—	—	—	—	—
Financial guarantee liability	5	—	—	—	—	—
Financial liabilities at FVTPL	17	219	416	59	789	112
Total current liabilities	25,567	33,017	31,288	4,429	35,317	4,999
Liabilities associated with assets classified as held for sale	38	—	—	—	—	—
Net current liabilities	(7,979)	(11,478)	(11,773)	(1,668)	(14,177)	(2,007)
Total assets less current liabilities	33,610	40,897	49,957	7,070	50,266	7,115
Capital and reserves						
Share capital	112	116	116	16	116	16
Reserves	16,840	21,269	25,752	3,645	26,587	3,763
Equity attributable to owners of the Company	16,952	21,385	25,868	3,661	26,703	3,779
Non-controlling interests	3,265	4,169	5,152	729	5,244	742
Total equity	20,217	25,554	31,020	4,390	31,947	4,521
Non-current liabilities						
Contract Liabilities	—	3,240	3,302	467	2,976	421
Deferred income	3,185	520	650	92	675	96
Amounts due to joint ventures	—	970	735	104	585	83
Lease liabilities	—	—	450	64	340	48
Bank and other loans — due after one year	523	2,101	2,848	403	3,771	534
Corporate bonds	2,494	—	2,094	296	2,095	297
Senior notes	2,366	2,491	2,539	359	—	—
Unsecured bonds	4,316	4,096	4,169	590	4,234	599
Financial liabilities at FVTPL	81	924	330	47	1,546	219
Deferred tax liabilities	428	1,001	1,820	258	2,097	297
Total non-current liabilities	13,393	15,343	18,937	2,680	18,319	2,594
Total equity and non-current liabilities	33,610	40,897	49,957	7,070	50,266	7,115

RISK FACTORS

You should carefully consider the risks and uncertainties described below and other information contained in this Offering Memorandum before investing in the Notes. The risks and uncertainties described below may not be the only ones that we face. Additional risks and uncertainties that we are not aware of or that we currently believe are immaterial may also adversely affect our business, financial condition or results of operations. If any of the possible events described below occur, our business, financial condition or results of operations could be materially and adversely affected. In such case, we may not be able to satisfy our obligations under the Notes, and you could lose part or all of your investment.

RISKS RELATING TO OUR BUSINESS

Our business, financial condition and results of operations may be materially and adversely affected by market fluctuations and economic slowdowns in the PRC and the global economy, particularly as a result of the COVID-19 pandemic.

Our business is subject to global market fluctuations and general economic conditions in the PRC and the global economy. Any prolonged downturn, recession or other condition that adversely affects our business and economic environment, including the ongoing COVID-19 pandemic, could materially and adversely impact our business, financial condition and results of operations.

The economic recovery since the 2008 global financial crisis has been slow, with economic growth rates in major economies such as Europe, the United States, Japan and the PRC generally remaining persistently lower than pre-crisis levels. The global economic conditions have been, and are likely to continue to be, affected by concerns over increased geopolitical tensions, including disagreements between Saudi Arabia and Russia on their daily production outputs of crude oil which has led to a significant decline in international crude oil prices, the continued uncertainty regarding the likelihood and timing of trade policy changes resulting from the trade war between the United States and China and the unpredictable implications of Brexit and any agreement that may emerge from ongoing negotiations between the United Kingdom and the European Union. Such events have and may continue to create negative economic impact and increase volatility in the global market.

Recent global market and economic conditions have been unprecedented and challenging with tight credit conditions and recession or stagnation in most major economies. The equity and financial markets have been very turbulent since the second half of 2015. Concerns over possible inflation or deflation, uncertainty relating to currency exchange rates and interest rates, the availability and cost of credit, the sovereign debt crisis in Europe, volatility in commodity and oil prices, geopolitical issues, policy changes affecting international trade and the imposition of tariffs, and unstable financial markets and the global housing and mortgage markets have contributed to increased market volatility, weakened business and consumer confidence and diminished expectations for economic growth around the world. More recently, trade tensions between the United States and China escalated, where both countries have increased tariff on certain products in their bilateral trade. China's economic growth may also slow down due to weakened exports as a result of tariffs and trade tensions caused by the U.S.-China trade war. In 2018 and 2019, the U.S. government, under the administration of President Donald J. Trump, imposed several rounds of tariffs on cumulatively U.S.$550 billion worth of Chinese products. In retaliation, the PRC government responded with tariffs on cumulatively U.S.$185 billion worth of U.S. products. In 2019, the U.S. government restricted certain Chinese technology firms from exporting certain sensitive U.S. goods and in 2020, the U.S. government may impose tighter restrictions against some of China's technology firms. While the lasting impact the trade war may have on China's economy and the energy sector remains uncertain, the trade war may negatively affect our operations if there are restrictions on certain activities of third parties whom we partner with in our businesses.

As more cases of COVID-19 emerge globally since the beginning of 2020, the World Health Organization declared COVID-19 a global pandemic on March 11, 2020.

The COVID-19 pandemic and policies implemented by governments to deter the spread of the disease have had and may continue to have an adverse effect on consumer confidence and the general economic conditions our business is subject to. Governments of many countries (including the PRC) have declared a state of emergency, closed their borders to international travelers and issued stay-at-home orders with a view to containing the pandemic. There is no assurance that such measures will be effective in ending or deterring the spread of COVID-19. As COVID-19 continues to spread across the globe, many more countries may be affected, which may result in the extension or implementation of further restrictive measures. The resultant disruptions to the supply chain and reduced levels of consumption, commercial activities and industrial production in the affected countries has precipitated an economic slowdown in those economies which, if prolonged, could cause a global recession. For example, we experienced an overall decrease in revenue in the first half year in 2020 compared to the first half year in 2019, due primarily to a decrease in the upstream natural gas procuring price, resulting in a decrease in the natural gas sales revenue as we conducted price pass-through to our customers. In addition, our revenue also decreased due to the reduced number of completed connections as COVID-19 has caused delays in the construction and installation progress for new customers, as well as a decrease in revenue from our value added business due to the reduced frequency of face-to-face communications with our existing and potential customers caused by COVID-19.

Our customers may face financial difficulties, which may lead to difficulties for us to collect our accounts receivables due to the effects of the COVID-19 pandemic on our customers and increased risks of incurring bad debt. Only a small number of customers were unable to pay fees when due, as residential customers are required to make payments in advance. While we expect the demand for our products and services are likely to remain robust, if our counterparties do not fulfil their contractual obligations or settle liabilities to us due to disruptions to their businesses or liquidity issues as a result of the COVID-19 pandemic, we may suffer losses and our financial condition may be adversely affected. In addition, there can be no assurance that we can recover money owed to us without a time-consuming, costly and protracted process.

Additionally, if any of our employees or our contractors' employees, for example, construction workers and gas appliance installers, are identified as a possible source of spreading COVID-19, we may be required to quarantine employees that are suspected of being infected, or our contractors may be required to quarantine employees that are suspected of being infected, as well as others that have come into contact with those employees. We may also be required to disinfect our affected premises, which could cause a temporary suspension of our projects and services, thus adversely affecting our business operations.

The COVID-19 pandemic is ongoing and evolving rapidly. The impact of the outbreak and government responses thereto may vary from jurisdiction to jurisdiction. The duration and ultimate impact of the outbreak cannot be reasonably estimated at this time. The outbreak and restrictions imposed to contain it may be further broadened or continue for extended periods of time. Such measures may not be successful in stabilizing markets or containing the economic or other impacts of the outbreak. As a result, the global economy is facing significant uncertainties and global financial markets are experiencing significant volatilities which may adversely affect the Chinese economy, our business and financial condition, results of operations, prospects, liquidity, capital position, credit ratings and the value of the Notes. Investors must exercise caution before making any investment decisions.

Our performance depends in part on property development, and our construction and installation fee income may be adversely affected by fiscal and credit tightening measures as well as industry policy introduced by the PRC government.

A portion of our gross profits in the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020 were derived from gas pipeline construction and installation fees, which are fees charged by us to end-users for connecting to our gas pipeline networks. Gas pipeline construction and installation fees for the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020 represented 12.3%, 9.7%, 9.9%, 10.3% and 8.5%, respectively, of our total revenue for the relevant period. In addition, revenue generated from gas pipeline construction and installation will generally achieve a higher gross margin than revenue generated from gas sales. For the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, the gross profits from gas pipeline construction and installation were RMB3,735 million, RMB3,456 million, RMB3,719 million, RMB1,921 million and RMB1,453 million, representing 44.8%, 36.3%, 33.0%, 34.3% and 25.9% of our total gross profits, respectively. We normally act as the project manager for the laying of gas pipelines in property development projects and we receive construction and installation fees in stages based on our percentage-of-completion of pipeline construction work. As a large portion of our construction and installation fee income is generated from new residential property development projects, the results of our pipeline connection operation may be affected by the performance of the PRC real estate markets. The timing and cost of the gas pipeline connections will depend on a number of factors, including, but not limited to, the cost and availability of financing to property developers, conditions in the PRC real estate markets and the general economic conditions in China. In recent years, the PRC government and PRC fiscal regulatory bodies have imposed various policies designed to limit or restrict the rate of growth of real estate development in the PRC. While we believe that our geographic coverage, with operational locations spread across 22 provinces, municipalities and autonomous regions in China and the low penetration rate in China, suggest a potential significant future growth of residential gas consumption and helps mitigate the risks of adverse property market conditions in individual cities, we cannot assure you that we will not be adversely affected if further fiscal and credit-tightening measures are introduced. In addition, any industry policy seeking to regulate connection fee imposed at a national or local level could have an adverse impact on our construction and installation fee income. For example, on June 27, 2019, NDRC published its Policy Paper No.1131 regarding “Guiding Opinions on Regulating City Connection Fee” which stipulated that, among others, the connection fee in certain regions where the connection fee is not liberalized will be capped in principle at 10% return on cost plus basis set by NDRC of the central government, with costs to be assessed by local pricing bureaus. We cannot assure you that there will be no future decline in our revenue from gas pipeline construction and installation as well as a drop in our gross margin. There is no guarantee that we will not be adversely affected if further industry policies are introduced. See also “*Risks Relating to the PRC — PRC economic, political and social conditions, as well as government policies, could affect our business and prospects.*”

In addition, property development projects may be materially and adversely affected by a number of factors, including shortage of equipment or materials, price fluctuations, bad weather, natural disasters, accidents, downturns in the property market, operational conditions and other unforeseeable situations or matters. Should any of these events occur, the completion of the whole or part of the property development project may be postponed and, consequently, the receipt of construction and installation fees may be delayed. We will not be compensated for construction and installation fees not received as a result of any such delays.

Our ability to maintain our current level of profitability depends on our continued success in securing connections to new piped gas customers and other factors which are outside of our control.

For the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, we achieved a gross profit margin of 17.3%, 15.7%, 16.1%, 15.8% and 17.8%, respectively, and a net profit margin of 7.6%, 6.3%, 9.8%, 11.2% and 10.0%, respectively. Although we believe that we are well-positioned to secure new projects in other high-growth cities, our ability to maintain and continue to generate growth is not assured. For example, our ability to maintain revenue generated from sales of piped gas depends on our continued success in maintaining ongoing and securing new connections to piped gas customers. Any decline in our pipeline connection operations and failure to maintain the number of end-users connected to our gas pipeline networks will have an adverse impact on our piped gas sales. Accordingly, there is no assurance that we will be able to sustain our current level of profitability and growth rates. Factors that could adversely affect our business and growth include, but are not limited to, competition from other gas distribution companies in areas that we seek to expand into, particularly those with more capital resources than us, and lack of success in securing and developing new operational locations, as well as increasing penetration rates in existing operational locations; reduction of the fees we can charge end-users for gas pipeline connections, whether due to market supply and demand, government regulation or otherwise; changes in the PRC government policy to promote the use of gas; significant increase in average gas purchasing costs and our potential failure to pass on the increased costs to end-customers in a timely manner; shifts in consumer preferences from piped gas to competing forms of energy; the increasing penetration rate of electric vehicles that do not consume natural gas; slowdown in real estate development; and discontinuation of any government subsidies that we currently enjoy.

We are subject to price controls in certain markets and may not be able to pass through increased costs to end-customers.

Retail gas sales for the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020 represented 56.0%, 56.5%, 57.1%, 57.5% and 57.7%, respectively, of our total revenue for the relevant period. Gas procurement cost of our city-gas projects is agreed between us and the suppliers with reference to the city-gate price regulated by the NDRC. In recent years, the PRC government has been progressively moving natural gas pricing towards a market-based mechanism so as to encourage more upstream gas supply from domestic and overseas imported sources.

The NDRC sets city-gate prices as a benchmark price instead of a ceiling price and permits it to be adjusted upward from November 20, 2016. On June 20, 2017, in order to strengthen the regulation of gas distribution tariff and maintain the healthy development of downstream distribution industry, the NDRC published the Guidelines to Strengthen the Gas Distribution Tariff Regulation (the "Guidelines"). The Guidelines stipulated the principle of "permitted costs plus reasonable returns" governing the return on assets of gas distribution with a 7% cap for natural gas distributors which is calculated based on the domestic gas prices. Furthermore, the NDRC's local branches and pricing bureaus shall formulate detailed implementation rules pursuant to the Guidelines, including the detailed calculation method of the gas distribution-related assets, costs and returns, by June 2018. Certain local branches of NDRC have issued their corresponding implementation rules in accordance with the Guidelines. For example, Development and Reform Commission of Hunan Province has promulgated the Measures of Hunan Province for the Administration of Pipeline Gas Distribution Tariff (Trial) on March 7, 2018 and the Measures of Hunan Province for the Administration of Pipeline Gas Distribution Tariff on December 9, 2019. If in certain regions the distribution tariff charged by us would result in return ratio above the 7% cap, we would be required to lower our tariff. We remain unable to assess whether and to what extent the implementation of the Guidelines would result in future price drops of the gas tariff we charge, which may cause our profit margin and other business and financial conditions to suffer. We cannot assure you that the Guidelines and future implementation rules would not materially and adversely affect our business prospects, financial conditions, and results of operations.

Local pricing bureaus determined indicative end-user tariffs. Any tariffs adjustment affecting residential end-users may be approved only after a hearing, while for non-residential end-users we established an automatic pass-through mechanism where if the price adjustment is within the government's indicative price, their approval is not needed. In relation to residential end-users, even if the adjustments sought by us are approved, such approval process and hearing can cause substantial delay and we may not be able to completely and quickly pass through future increases in natural gas costs to end-users and may face margin pressure if the NDRC makes unfavorable adjustments in gas prices. In addition, as the end-user tariffs increase, we may encounter a slow-down in the growth of our sales of natural gas to certain most price-sensitive commercial and industrial ("C&I") customers as they may cease or reduce their natural gas consumption by utilizing other alternative fuels with lower costs.

In addition, we cannot assure you that we will continue to charge pipeline construction and installation fees and gas tariffs in our existing markets at the levels currently enjoyed by us, or that the relevant local pricing bureaus will allow us to charge similar construction and installation fees in new markets. We cannot assure you that we will be able to obtain the required approval from the relevant local pricing bureaus for an increase in pipeline construction and installation fees or gas tariffs if our costs increase significantly. Any reduction in construction and installation fees and end-user tariffs, failure of or delay in passing through the increased costs, and any potential slow-down of consumption growth will have an adverse impact on our results of operations and financial condition. If we are unable to obtain approval for passing through any increased input costs in pipeline construction and installation fees or gas tariffs, our profits may be materially and adversely affected.

We are dependent on a limited number of suppliers of natural gas, which may affect our ability to supply natural gas to our customers.

Natural gas, the primary raw material purchased by us, accounted for 82.0%, 88.1%, 85.5%, 86.8% and 84.0% of our total cost of sales for each of the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, respectively. We currently purchase a substantial portion of our natural gas from oil and gas exploration and production companies, primarily, PetroChina, Sinopec, and China National Offshore Oil Corporation ("CNOOC"), or their distributors, pursuant to gas purchase agreements with terms that typically range from 15 to 25 years. While we have entered into take-or-pay or other long-term gas purchase contracts to secure long-term natural gas supply for certain of our projects, many of our other projects do not have similar arrangements. Therefore, we cannot assure you that we will be able to continue to purchase natural gas from suppliers on similar terms or on terms otherwise acceptable to us, in which case our business and profitability may be materially and adversely affected. In addition, we cannot assure you that unforeseen events will not prevent the timely delivery of, or affect the quality of, natural gas supplied by our suppliers. We obtain natural gas directly from suppliers via pipelines. In the event of an unforeseen disruption to natural gas pipeline supplies, whether due to accidents, commercial reasons, technical difficulties, natural disasters, war or terrorism, we may be unable to obtain an immediately available supply of natural gas for our piped gas customers. If the required natural gas cannot be purchased as scheduled or on terms acceptable to us, our business, financial condition and results of operations may be adversely affected. Our gas supply became more abundant and diversified following the execution of the three long-term LNG import contracts signed with Chevron U.S.A INC., Origin Energy LNG Portfolio Pty Ltd. and Total Gas & Power Asia Private Limited in 2016. See also "*Business — Purchases — Gas.*" Our natural gas import amounts to around 10% of the total gas supplied to us, while the remaining 90% is supplied domestically. The natural gas imports are expected to continue to grow as the PRC government plans to improve the importation channels for natural gas from Central Asia under the 14th Five-Year Development Plan for the Natural Gas Sector. Due to the fluctuations in international crude oil prices, we cannot assure you that imported natural gas can be procured on terms and prices similar to domestically sourced natural gas. For example, in 2018 and 2019, international LNG prices were higher than that for the base volume of LNG but lower than that for the incremental volume as agreed in the abovementioned three long-term LNG import contracts, while for the first half of 2020, international LNG prices were lower than those for both the base volume and incremental volume. Should the prices of imported natural gas become higher than domestically sourced natural gas, increasing imports of natural gas by us will increase our average costs of natural gas and our cost of sales. If we are unable to pass on the higher cost of sales to our customers by charging higher prices, our margin and profitability would be adversely affected.

We may be subject to risks of potential shortfall on committed take-or-pay volume if we fail to increase the number of connected residential households and C&I customers in the operational locations which are subject to take-or-pay obligations.

We have entered into take-or-pay contracts with, among others, PetroChina, Sinopec and CNOOC, or their distributors, for gas supplied through the West-East Pipelines, the Zhong-Wu Pipelines, the Sichuan East Pipelines and other pipelines. In order to fully utilize our committed volume, we will need to increase the number of connected residential households and C&I customers in our operational locations that are subject to take-or-pay obligations and their usage volume in the next few years. Since 2016, we have commitments to acquire LNG from certain international natural gas suppliers. The delivery of LNG under such arrangements commenced in 2018 and last for 5 to 10 years. We are obliged to make "take-or-pay" payment to suppliers for the quantity contracted but not delivered. We may be subject to risks of potential shortfall on committed take-or-pay volume and may suffer losses if we fail to generate sufficient demand. See also "*Business — Purchases — Gas.*"

If we are unable to fund our substantial capital expenditure requirements and current liabilities on terms we deem acceptable, it may adversely affect our prospects and future operations.

Our city-gas project development generally comprises of the construction of gas pipeline networks and gas storage facilities. The construction of natural gas pipelines mainly involves laying underground gas pipelines and ancillary gas pipelines that provide the connections to residential households and C&I customers. In particular, for some major city-gas projects, construction also involves the construction of processing stations and high-pressure transmission gas pipelines. The construction of natural gas storage facilities also involves laying underground gas pipelines, constructing storage tanks and ancillary facilities. The construction of various gas pipeline infrastructures requires substantial initial investment which must be financed by internal resources, bank or other borrowings and/or equity fund raising. We cannot assure you that we will be able to secure adequate financing from the abovementioned sources to fund the capital expenditure required for developing new gas pipeline networks and new natural gas storage facilities in the future. In the event that we are unable to obtain adequate financing, our ability to expand our gas distribution network may be hindered and the prospects of our future operations may be adversely affected. In addition, given the nature of gas pipeline construction and ancillary facility development, it would typically take years before the newly constructed pipelines and facilities could be put into use and contribute towards our revenue. This translates into a long payback period for our substantial capital expenditure before our capital investment for each project could generate return. Any unexpected adverse changes or delays in the process or any financing difficulty could further lengthen the payback period of our investment and may have an adverse impact on our liquidity and financial condition.

As of December 31, 2017, 2018 and 2019 and June 30, 2019 and 2020, our net cash generated from operating activities was RMB6,093 million, RMB8,294 million, RMB11,690 million, RMB4,294 million and RMB3,213 million, which enables us to fund our capital expenditure. In spite of this, we may have substantial net current liabilities in the future, and our business operations and our ability to raise funding may be materially and adversely affected by any such net current liabilities. Moreover, our cash flow position depends not only on market conditions and customer demands, but also on a number of political, economic, legal and other factors, including any impact from the ongoing COVID-19 pandemic, which are beyond our control. If we cannot maintain sufficient revenue or are not able to raise necessary funding to pay off our current liabilities and meet our capital commitments, our business, financial condition and results of operations may be materially and adversely affected.

The economic benefits arising from the expansion of our gas pipeline networks depend on the economic development of the areas in which the projects are located.

As our income is mainly derived from (i) the sale of natural gas to residential, C&I and vehicle customers from whom we collect fees based on the volume of gas consumed, and (ii) gas pipeline construction and installation fees collected from customers connecting to our gas pipeline network for their gas supply, the success of our projects depends on the economic development of the areas in which the projects are based. Although we typically undertake feasibility studies to assess the future economic benefit of a project, we cannot assure you that an operational location will develop or prosper economically. Given the substantial capital investment at the early stages of each project, any unexpected adverse changes in the economic growth of an operational location or any substantial deviation from our expectations in terms of both the number of new customers and the volume of their future gas consumption, could lengthen the payback period of our investment and may adversely affect our liquidity and financial condition.

Failure to attract and retain qualified personnel and experienced senior management could disrupt our operations and adversely affect our business and competitiveness.

To a significant extent, our success is built upon the technical expertise and in-depth knowledge of the piped gas supply and integrated energy industry possessed by the executive directors and certain other key technical and management personnel. Our future growth and success will depend to a large extent on our ability to retain or recruit qualified individuals to strengthen our management, operational and research teams. Due to the intense market competition for highly skilled workers and experienced senior management, we may face difficulties locating experienced and skilled personnel in certain areas, such as engineering, marketing, product development, sales, finance and accounting. Accordingly, if any of our executive directors or key technical and management personnel ceases to be involved in our operations, or if any of them fails to observe and perform their obligations under their respective service agreements, the implementation of our business strategies may be affected, which could lead to a material adverse impact on our operations.

Our expansion into new business areas and new distribution channels may subject us to additional risks and uncertainties.

From time to time, we may undertake investments, acquire certain businesses, assets and technologies, as well as develop new business lines, products and distribution channels, any of which may not be successful. We accelerate the expansion of our integrated energy business. As of June 30, 2020, we operated a total of 108 integrated energy projects in China. These investments, acquisitions and business initiatives could require our management to develop expertise in new areas, manage new business relationships, attract new types of customers, and divert their attention and resources. These investments, acquisitions and business initiatives may also expose us to potential risks, including risks associated with the integration of new business lines, operations and personnel, the diversion of resources from our existing businesses and technologies, the potential loss of, or harm to, relationships with employees and customers, as well as other unforeseen or hidden liabilities. The expansion of our businesses may also put pressure on our efforts to centralize our management effectively and develop our information technology systems. There is no assurance that we will succeed in any of these initiatives within the expected timeframes or at all.

The performance and results of our integrated energy business depend upon our ability to remain competitive in a highly competitive market and upon successful execution of our projects.

Our results of operations in the integrated energy business could be materially and adversely affected by keen competition resulting from relatively low barriers to entry into the integrated energy market. Unlike piped gas, the pricing of energy sales and services provided under the integrated energy business is unregulated. Therefore, the profitability of integrated energy business will depend largely on the operating efficiency and energy consumption level of the company, as well as whether the company is able to benefit from the synergies across its integrated energy projects. There is no guarantee that we will be able to maintain our competitiveness in this highly competitive market and continue to grow our customer base. An increase in the market entrants with better know-how and resources may potentially have a material adverse effect on our business, financial condition and results of operations.

The execution of integrated energy projects requires expertise and technological know-how so as to be able to devise customized energy solution for customers' needs. The design of energy solution will depend on the availability of energy sources, consumption level, customers' nature of business, capability to coordinate and dispatch energy among customers. Although we have accumulated expertise and have been improving our technological know-how to stay competitive in the market, there is no guarantee that we will be able to excel as a market leader in terms of technology and innovation or that our expertise will be directly relevant to the smooth execution of integrated energy projects. The risks associated with project development and execution can impact the viability and economic feasibility of our projects and may accordingly negatively affect our results of operations, financial condition and reputation.

Our value added business may be subject to product liability claims which may adversely affect our business, financial condition and results of operations.

Our value added business may be subject to product liability claims if consumers are injured or otherwise harmed by the products or services provided by us. Concerns regarding the safety of gas appliances and household products that are sourced from a variety of suppliers could cause shoppers to avoid purchasing certain products from us, even if the basis for the concern may be outside of our control.

Claims, recalls or actions could be based on allegations that, among other things, the products sold are misbranded, provide inadequate instructions regarding their use or misuse, include inadequate warnings or in the case of any electrical devices that we sell, are not fit for purpose or pose a safety hazard. While we maintain product liability insurance coverage in amounts and with deductibles that we believe are prudent, there can be no assurance that the coverage will be applicable and adequate to cover all possible adverse outcomes of claims and legal proceedings against us. Any material shortfall in coverage may have an adverse impact on the results of our operations. In addition, any lost confidence on the part of our customers would be difficult and costly to re-establish. As such, any material issue regarding the safety of any gas appliances and/or household products we sell, regardless of the cause, could materially and adversely affect our business, financial condition and results of operations. See also "*Risk Factors — Risks Relating to the PRC Natural Gas Industry — Natural gas operations entail inherent safety and environmental risks that may result in substantial liability to us.*"

The expansion of our business into new locations may not be as successful or profitable as in the provinces in which we currently operate.

We plan to expand our business into additional locations. In 2017, 2018, 2019 and the six months ended June 30, 2020, the number of city-gas projects under our management increased by 12, 15, 30 and 12, respectively. Our experience in the locations in which we currently have operations, however, may not be applicable in other parts of China or abroad. We cannot assure you that we will be able to leverage such experience to expand into new markets. When we enter new markets, we may face intense competition from natural gas operators with established experience or presence in the geographical areas in which we plan to expand and from other natural gas operators with similar expansion targets. In addition, expansion or acquisition may require a significant amount of capital investment, which could divert the resources and time of our management and, if we fail to integrate the new locations effectively, it will affect our operating efficiency. Demand for natural gas, environmental standards and government regulation and support may also be different in other cities. Failure to manage any of our planned expansions, strategic alliances or acquisitions may have a material adverse effect on our business, financial condition and results of operations and we may not have the same degree of success in other cities that we have had so far, or at all. In addition, although we intend to expand our operations, we cannot assure you that we will be successful in soliciting new projects in the future through either auction or private negotiation.

We may encounter problems with our joint projects and disputes with our joint venture and other business partners may adversely affect our business, financial condition and results of operations.

In the course of our business, we have in the past formed, and will in the future continue to form, joint ventures, consortiums or other cooperative relationships with other parties, including in some cases foreign governmental entities or foreign companies, to jointly engage in certain business activities, which include, among others, jointly operating the oilfields. We may be unable to control the actions of such third-party operators.

We may bear joint and several liabilities to the project owners or other parties with third-party operators, other consortium members or joint venture or business partners under the relevant consortium, joint venture or other agreements, and, as a result, we may incur damages and other liabilities for any defective work or other breaches by third-party operators, other consortium members or joint venture or business partners.

In addition, if there are disagreements between us and our joint venture partners regarding the business and operations of the joint projects, there can be no assurance that they will be able to resolve them in a manner that will be in our best interests. Certain major decisions, such as selling or refinancing these projects, may require the consent of all other partners. These limitations could adversely affect our ability to sell, refinance or otherwise operate and profit from these projects.

Any of these and other factors may have an adverse effect on the performance of our oil and gas joint projects and expose such projects to a number of risks, including the risk that these projects may not be able to fulfill their obligations under contracts with customers, resulting in disputes not only between us and our partners, but also between the joint ventures and their customers, or create unexpected complications. Such a material adverse effect on the performance of the joint projects may in turn adversely affect our business, financial condition and results of operations.

Our operations may be adversely affected by cyber-attacks or similar disruptions.

We devote significant resources to protecting our digital infrastructure and data against cyber-attacks. If our systems against cyber-security risk prove to be ineffective, we could be adversely affected by, among other things, disruptions to our business operations, and loss of proprietary information, including intellectual property, financial information and employer and customer data, injury to people, property, environment and reputation. As cyber-security attacks continue to evolve, we may be required to expend additional resources to enhance our protective measures against cyber-security breaches.

We are in the process of applying land use right certificates and/or building ownership certificates for certain of our properties in China.

We currently do not hold land use right certificates and/or building ownership certificates in respect of several of our plants or land in China. We are in the process of applying for such building ownership certificates and land use right certificates. As of December 31, 2019, we are in the process of applying for ownership certificates for our buildings in the PRC and for the land use right certificates for the land in the PRC, together amounting to approximately RMB540 million. Our rights as owner of such properties may be adversely affected as a result of the absence of formal title certificate, as we will not be able to transfer our interest in the land or the building for such land and/or buildings until we have obtained any land use right certificates and/or building ownership certificates. Some of the entities from which we leased land may not possess valid title to their properties. In addition, we have leased land from individual villagers or village committees and applicable PRC law may be interpreted as prohibiting such land to be used for non-agricultural purposes. If there are disputes over the legal title to any of these leased properties or if the relevant authorities determine that our use of such properties violates PRC law and our leases are deemed to be invalid, we may be required to vacate such sites, which could disrupt our business operations in those locations and our business, financial condition and results of operations may be adversely affected.

The interests of our controlling shareholders may differ from those of our Company.

As of the date hereof, Mr. Wang Yusuo ("**Mr. Wang**") the Chairman of the Company, his spouse, Ms. Zhao Baoju ("**Ms. Zhao**") together owned approximately 32.91% of the issued share capital of our Company (as recorded in the register required to be kept under section 352 of the Securities and Futures Ordinance). Accordingly, Mr. Wang and Ms. Zhao have, and will continue to have, the ability to exercise significant influence over our business and may cause us to take actions that are not in, or may conflict with, our interests and/or the interests of some or all of our creditors or minority shareholders. We cannot assure you that such actions will not have an adverse effect on us or the holders of the Notes.

In particular, our ability to access LNG receiving terminals in Zhoushan is dependent on our controlling shareholder continuing with the access arrangement under the long-term agreements. If our controlling shareholder no longer allows us access to Zhoushan's LNG receiving terminals, we may in turn lose access to a variety of gas suppliers in the market and face difficulties in diversifying our gas sources and lowering our overall natural gas procurement costs. Our business, financial condition and results of operations may accordingly be adversely affected.

After the completion of the restructuring at the controlling shareholder level, the 369,175,534 shares in the Company held by Mr. Wang and Ms. Zhao through their investment vehicle, ENN Group International Investment Limited ("**EGII**") and its wholly-owned subsidiary Essential Investment Holding Company Limited, which represent 32.78% of the Company's total issued share capital, will be transferred to ENN Ecological Holdings Co., Ltd. See "*Business — Recent Developments — The Recent Reorganization.*"

We conduct our business through PRC operating subsidiaries and joint venture partners, some of which we do not control, and these business partners' interests may not align with ours.

We currently conduct our business operations primarily through operating subsidiaries established in China. Although we have control over the management of these operating subsidiaries, a substantial portion of them are not wholly owned. We also conduct our business through certain joint ventures with PRC partners which we do not control. For those non-wholly owned operating subsidiaries and joint ventures, certain important corporate actions for many subsidiaries typically require supermajority or unanimous board or shareholder approval. We cannot assure you that our subsidiaries or joint ventures will not engage in certain of these corporate actions in the future or that, if they do, that they will be able to cause our PRC partners to consent to such actions. In addition, there is a possibility that the PRC partners of these operating subsidiaries may have economic or business interests or goals which are inconsistent with our own, and are unable or unwilling to fulfil their obligations under the relevant joint venture or shareholders' agreements, or have financial difficulties.

With respect to our Sino-foreign equity joint ventures, we also rely on shareholding entrustment agreements which may not be as effective in providing operational control as direct or indirect ownership. As these shareholding entrustment agreements have not been submitted or approved by authorities in China, there is also a risk that the relevant PRC authorities may consider these shareholding entrustment agreements to be invalid or unenforceable. We cannot assure you that our partners will not have economic or business interests or goals which are inconsistent with our own, or will be able or willing to fulfil their obligations under the relevant joint venture or shareholders' agreements, or have financial difficulties.

Any such events, particularly if they cannot be remedied due to our inability to cause the termination of the joint venture or other significant corporate actions, may have an adverse effect on our business, financial condition or results of operations.

We may not be able to detect and prevent fraud or other misconduct committed by our representatives.

While we have internal controls and procedures designed to prevent fraud and misconduct by our representatives, we may not always be able to detect or prevent such misconduct in a timely manner, especially if it is related to the personal behaviors of our representatives, and we cannot assure you that we will be able to detect or prevent such misconduct or improper activities in a timely manner or at all, many of which are beyond our control. If such misconduct led to negative publicity, our image may be harmed, and our business, financial condition and results of operations could be adversely affected.

We may in the future receive, through our supplier, natural gas indirectly from Russia that is currently the subject of sanctions of the U.S. and other countries.

In 2014, the United States, the E.U. and other countries began to impose economic sanctions on certain individuals and entities in Russia. Certain of these sanctions apply to the energy sector of the Russian Federation economy.

CNPC, the parent company of one of our key suppliers, PetroChina, has entered into a purchase and sales contract with Gazprom, the largest extractor of natural gas in Russia and a sanctioned entity, for the supply of natural gas. The first deliveries of natural gas were made in December 2019. Because PetroChina is our key supplier and in certain occasions or locations, our only supplier, we may receive, indirectly through PetroChina, natural gas from Gazprom in the future.

Under the current sanctions regime, we do not believe that the purchase and delivery of natural gas from Gazprom to CNPC, PetroChina, and ultimately to us, would be targeted by the sanctions. Although we will closely monitor future sanctions targeting Russia, we cannot predict whether the current sanctions targeting Russian individuals and entities will be enhanced in the future, or the impact that any such enhancements may have on us. It is possible that we may encounter serious delay in or disruption of our procurement of natural gas in the future, and we may not be able to secure the amount of natural gas supply we desire from other suppliers on acceptable terms or at all, which may materially affect our business, financial condition, result of operations and prospects.

The adoption of HKFRS 9 and HKFRS 15 with effect from January 1, 2018 renders our consolidated financial information as of and for the year ended December 31, 2017 not directly comparable with our consolidated financial information after January 1, 2018.

With effect from January 1, 2018, we adopted HKFRS 9 and HKFRS 15 where we are required to reclassify and adjust certain of its financial line items in our financial statements. Please refer to Note 3 of the 2018 Audited Consolidated Financial Statements for a discussion on the impact of the adoption of HKFRS 9 and HKFRS 15. As we have applied the transitional provisions set out in HKFRS 9 and the modified retrospective approach set out in HKFRS 15, each with the date of initial application of January 1, 2018 and without requiring any restatement of the corresponding figures of the prior period before January 1, 2018, our consolidated financial information as of and for the year ended December 31, 2017 may not be directly comparable against our consolidated financial information after January 1, 2018, including our consolidated financial information as of and for the years ended December 31, 2018 and 2019. Investors must therefore exercise caution when making comparisons to any financial figures after January 1, 2018, including our audited consolidated financial statements as of and for, the years ended December 31, 2018 and 2019 against our consolidated financial information prior to January 1, 2018 and when evaluating the Group's financial condition, results of operations and results.

The adoption of HKFRS 16 with effect from January 1, 2019 renders our consolidated financial information as of and for the years ended December 31, 2017 and 2018 not directly comparable with our consolidated financial information after January 1, 2019.

With effect from January 1, 2019, we adopted HKFRS 16 where we are required to reclassify and adjust certain of its financial line items in its financial statements. Please refer to Note 3 of the 2019 Audited Consolidated Financial Statements for a discussion on the impact of the adoption of HKFRS 16. As we have applied the modified retrospective approach set out in HKFRS 16 with the date of initial application of January 1, 2019 and without requiring any restatement of the corresponding figures of the prior period before January 1, 2019, our consolidated financial information as of and for the years ended December 31, 2017 and 2018 may not be directly comparable against our consolidated financial information after January 1, 2019, including our consolidated financial information as of and for the year ended December 31, 2019. Investors must therefore exercise caution when making comparisons to any financial figures after January 1, 2019, including our audited consolidated financial statements as of and for the year ended December 31, 2019 against our consolidated financial information prior to January 1, 2019 and when evaluating the Group's financial condition, results of operations and results.

The adoption of hedge accounting with effect from January 1, 2020 renders our interim condensed consolidated financial information as of and for the six months ended June 30, 2019 not directly comparable with our interim condensed consolidated financial information after January 1, 2020.

With effect from January 1, 2020, we adopted hedge accounting in accordance with HKFRS 9 where we designate certain derivatives as hedging instruments for cash flow hedges. Please refer to Note 2 of the Interim Condensed Consolidated Financial Statements for a discussion of the adoption of hedge accounting. As the adoption of hedge accounting was prospective and we did not restate the corresponding figures for the prior periods before January 1, 2020, our interim condensed financial statements as of and for the six months ended June 30, 2019 may not be directly comparable to our interim condensed consolidated financial information after January 1, 2020, including our Interim Condensed Consolidated Financial Statements. Investors must therefore exercise caution when making comparisons to any financial figures after January 1, 2020, including our Interim Condensed Consolidated Financial Statements against our consolidated financial information prior to January 1, 2020 and when evaluating the Group's financial condition, results of operations and results.

RISKS RELATING TO THE PRC NATURAL GAS INDUSTRY

Our gas distribution business is dependent on our ability to maintain our gas operation licenses, other certificates, approvals and permits.

We conduct our piped city-gas businesses in the PRC pursuant to gas operation licenses, other certificates, approvals and permits from the PRC government which authorizes us, in some instances, to provide exclusive gas distribution services in various PRC locations. Our PRC projects and joint ventures may be in the process of obtaining valid gas operation licence from time to time. For the validly obtained gas operation licenses, the PRC government may revoke the gas operation licenses in certain circumstances based on the recommendation of the governmental bodies charged with the regulation of the transportation, distribution, marketing and storage of gas.

In addition, some of our PRC project companies have not obtained or are still in the process of obtaining necessary environmental or construction related approvals from PRC authorities, if any of our gas operation licenses, other certificates, approvals or permits are revoked, not renewed or not obtained, we would be required to cease providing gas supply and transportation services in the relevant PRC locations. Our business, financial condition and results of operations may be materially and adversely affected in case of loss of some or all of our gas operation licenses, other certificates, approvals or permits.

Our piped gas distribution projects rely on concessions rights granted by local governments, which will expire, or may be terminated early or not be renewed upon expiration, and may contain restrictions on our transfer of interests in the project.

We operate our piped gas distribution projects typically on an exclusive basis for periods ranging from 25 to 30 years pursuant to the relevant concession rights we have obtained or are in the process of obtaining from local governments as we continue to expand our operations. Some concession rights agreements of our projects contain restrictions on our ability to transfer our interests to third parties without prior consent from the relevant local government. Furthermore, concession rights are subject to regulatory controls.

Cancellation or early termination of any such concessions or imposition of restrictive regulatory controls or failure to renew any concession upon its expiration or failure to obtain any concession right, if at all, may interrupt the operations of such projects which may have a material adverse effect on the financial condition and results of operations of such projects.

We are exposed to the credit risk of our C&I customers, and any increase in the level of non-payment by our customers may adversely affect our business and financial condition.

C&I customers generally consume high volumes of piped gas and their non-payment could materially and adversely affect our business. We charge our C&I customers gas usage charges either in advance or in arrears. For those charged in advance, we require the customers to deposit gas charges into magnetic cards which connected to the gas meters. Gas meters that record actual gas consumption are installed at the customers' premises and where smart meters are used, meter readings are automatically transferred to our system in real-time, corresponding value of deposit will be charged in line with the volume of gas consumed at pre-determined unit. For those charged in arrears, monthly bills based on prior month's actual usage are then sent to the customer. In the event a customer defaults on the payment of gas usage charges, the customer's gas supply will be suspended at our discretion. Due to the COVID-19 pandemic, we have allowed for additional grace period for a small number of clients on a case-by-case basis. In addition, we collect construction and installation fees from our C&I customers in advance in instalments based on the percentage-of-completion of the pipeline construction work. In general, a C&I customer is required to pay a deposit of the construction and installation fee upon signing of supply contract. In the event a customer defaults on the payment of construction and installation fees, we do not start the supply of gas to the customer until the construction and installation fees are fully paid. Although we have the ability to terminate or suspend service to customers who do not pay, any material increase in non-payment by our customers would increase our accounts receivables considerably without the corresponding financing to fund our working capital, which may materially and adversely affect our financial condition and results of operation.

Natural gas operations entail inherent safety and environmental risks that may result in substantial liability to us.

Natural gas operations entail inherent risks, including equipment defects, malfunctions and failures, human error, accidents, and natural disasters, which could result in uncontrollable flows of natural gas, fires, explosions, property damage, damage to the environment, injury or death. Natural gas pipelines, if damaged or improperly maintained, may rupture or cause leakage and any explosion or combustion resulting from the leakage may cause death or serious injuries. According to the National Gas Accident Analysis Report (2nd Quarter of 2020) released by the Safety Management Committee of China City Gas Association, there were 105 natural gas accidents (representing 53 user accidents and 52 pipeline accidents), 16 deaths and 61 injuries relating to natural gas operations and usage in the first half of 2020.

The location of pipelines near populated areas, including residential areas, commercial business centers, industrial sites and other public gathering places, could increase the level of damage resulting from these risks, including the loss of human life, significant damage to property, environmental damage, impairment of our operations and substantial loss to us. We may incur substantial liability and cost if damages are not covered by insurance or are in excess of policy limits.

We have limited insurance coverage and may incur losses due to business interruptions resulting from natural or man-made disasters, and our insurance may not be adequate to cover liabilities resulting from accidents or injuries that may occur.

Due to the nature of our business, we often handle highly flammable and explosive materials. There is a significant risk that industry-related accidents will occur in the course of our business. While we have implemented safety precautions and maintenance procedures throughout our businesses, we cannot assure you that accidents will not occur during future operations. Any significant accident, whether or not we are found to be at fault, may adversely affect our business, financial condition and results of operations. We have obtained insurance for certain fixed assets (including the pipelines we own) that we consider to be subject to significant operating risks. We have also taken out third-party liability insurance policies covering (i) the loss of life or property of third parties arising out of any accident that may occur at our natural gas processing stations, and (ii) the injury or loss of life of staff arising out of our business operations. We have not, however, taken out an insurance policy for any interruption of our business. Should any natural catastrophes such as earthquakes, floods, or any acts of terrorism occur, we may suffer significant property damage and loss of revenue due to interruptions in our business operations. We cannot assure you that our insurance policies will adequately compensate for losses or damages under any and all potential adverse circumstances. A material and successful claim made against us that is not covered by any of our insurance policies or is in excess of our insurance coverage could have an adverse effect on our business and financial position.

Our growth depends in part on environmental regulations and programs promoting the use of cleaner-burning fuels, and modification or delay in implementation of these regulations may adversely impact our business.

Our business is subject to certain PRC laws and regulations relating to the production, storage, transportation and sale of natural gas and other energy sources, as well as environmental and safety matters. The discharge of natural gas or other pollutants into the environment may give rise to liabilities or may require us to incur significant costs to remedy such discharge. In addition, we cannot assure you any environmental laws adopted in the future will not materially increase our cost of conducting business.

In addition, our business depends in part on environmental regulations and programs in China that promote the use of cleaner-burning fuels, including natural gas, for vehicles. Moreover, according to the PRC Government Energy Production and Consumption Revolution Strategy 〈能源生產及消費革命戰略〉(2016-2030), the PRC government intends to enhance the supply of natural gas, the development of gas pipeline network and energy saving and emission reduction. According to BP Statistical Review of World Energy June 2020, the proportion of natural gas in China's total primary energy consumption was 7.8% in 2019, the PRC government targets to increase the proportion of natural gas in China's total primary energy consumption to 15% by 2030 according to the Energy Production and Consumption Revolution Strategy (2016-2030). The PRC government will implement additional regulations and programs encouraging the use of natural gas. Any delay in implementation of these regulations or programs could have a detrimental effect on the continued development of the PRC natural gas industry, which, in turn, could adversely affect our business.

The natural gas and crude oil price fluctuates widely, which will affect the prices of natural gas we source from some of our suppliers and have a material adverse impact on our business and profitability.

The prices of natural gas in our supply arrangements with certain suppliers are linked to prevailing prices for natural gas and/or crude oil. Natural gas and crude oil prices historically have been volatile and likely will continue to fluctuate in the future due to a variety of factors that are beyond our control. These factors include:

- overall economic conditions;
- the level of consumer demand for natural gas and crude oil, the price, availability and acceptance of alternative fuels and technology advances affecting energy consumption;
- political conditions in natural gas and crude oil producing regions;
- the ability of the members of the Organization of Petroleum Exporting Countries to agree to and maintain crude oil price and production controls;
- actions, regulations and taxation of relevant governmental authorities, including environmental and climate change regulations;
- speculation by investors in natural gas and crude oil; and
- variations between product prices at sales points and applicable index prices.

These factors and the volatile nature of the energy markets make it impossible to predict with any certainty the future prices of natural gas and crude oil. While we use financial derivatives, including but not limited to swaps and options, to hedge applicable risks of the volatility in natural gas and crude oil price, the use of such financial derivatives may not successfully hedge all risks. The fair value of derivatives fluctuates mainly due to the volatility of crude oil price, which in turn impacts our results of operations. If natural gas and crude oil prices increase significantly, and/or such increases last for a sustained period of time, we may be unable to secure natural gas supply at an acceptable price. In the event of significant increases in average gas purchasing costs, we may be unable to pass on to end-customers in a timely manner, which in turn may materially and adversely affect our business and profitability.

Adverse developments in the PRC economy or an economic slowdown in the PRC may reduce the demand for our products and services and have a material adverse effect on our results of operations, financial condition and prospects.

We rely on demand for natural gas, other forms of energy as well as related services in China for our revenue growth, which is substantially affected by the growth of the industrial base, increases or decreases in residential and commercial and industrial consumption of natural gas and the overall economic growth of China. In recent years, China has been one of the world's fastest growing economies in terms of GDP growth. However, the global financial crisis that unfolded in 2008 and continued in the past few years has led to a marked slowdown in the economic growth of China. For example, China's real GDP growth rate declined from 6.8% in 2017, to 6.6% in 2018 to 6.1% in 2019. More recently, rising government deficits and debt levels across the globe together with a wave of downgrading of sovereign debt in major western economies have caused turmoil in the global financial markets. The global economy may continue to exacerbate in the future and continue to have an adverse impact on the PRC economy. Any significant slowdown in the PRC economy may have a material adverse effect on our business, prospects, financial condition and results of operations.

RISKS RELATING TO THE PRC

PRC government regulations may limit our activities and adversely affect our business operations.

Our operations, like those of other PRC oil and gas companies, are subject to extensive regulation by the PRC government. In China, gas companies operating piped gas distribution businesses in urban areas are under the supervision of a number of government ministries and departments, including, but not limited to, the Ministry of Construction and the Ministry of Public Security. We must comply with the relevant requirements of certain regulations, including the Regulations on the Administration of Fuel Gas in Urban Areas and the Administration Measures for Concession Operation of Municipal Public Utilities. Central governmental authorities, such as the NDRC, the Ministry of Finance, the Ministry of Land and Resources, the Ministry of Commerce and the State Bureau of Taxation and the local pricing bureaus, exercise extensive control over various aspects of the PRC's oil and gas industry. This control affects a number of aspects of our operations such as the pricing of our main products and services, industry-specific taxes and fees, business qualifications, capital investments, and environmental and safety standards. As a result, we may face significant constraints on our ability to implement our business strategies, to develop or expand our business operations or to maximize our profitability. Our business may also be adversely affected by future changes in policies of the PRC government ministries and departments in respect of the oil and gas industry as well as changes in policies of local governments in relation to our various areas of business.

PRC economic, political and social conditions, as well as government policies, could affect our business and prospects.

The PRC economy differs from the economies of most of the developed countries in many respects, including the extent of government involvement, level of development, growth rate, uniformity in the implementation and enforcement of laws in relation to control of foreign exchange and control over capital investment and allocation of resources.

The PRC economy is in the process of transitioning from a centrally planned economy to a more market-oriented economy. For approximately three decades, the PRC government has implemented economic reform measures to utilize market forces in the development of the PRC economy. In addition, the PRC government continues to play a significant role in regulating industries and the economy through policy measures. We cannot predict whether changes in PRC economic, political or social conditions and in PRC laws, regulations and policies will have an adverse effect on our current or future business, financial condition or results of operations.

In addition, many of the economic reforms carried out by the PRC government are unprecedented or experimental and are expected to be refined and improved over time. Other political, economic and social factors may also lead to further adjustments of the reform measures. This refining and adjustment process may not necessarily have a positive effect on our operations and business development.

Our business, financial condition and results of operations may be adversely affected by:

- changes in PRC political, economic and social conditions;
- changes in policies of the PRC government, including changes in policies affecting the natural gas industry;
- changes in laws and regulations or the interpretation of laws and regulations;
- measures that may be introduced to control inflation or deflation;
- changes in the rate or method of taxation;

- imposition of additional restrictions on currency conversion and remittances abroad; and

- reduction in tariff protection and other import restrictions.

Furthermore, the growth of demand in China for natural gas depends heavily on economic growth. We cannot assure you that such growth will be sustained in the future. Since early 2004 and from time to time, the PRC government has implemented certain measures in order to prevent the PRC economy from experiencing excessive inflation. Such governmental measures may cause a decrease in the level of economic activity, including demand for natural gas, and have an adverse impact on economic growth in China. If China's economic growth slows down or if the Chinese economy experiences a recession, the growth of demand for natural gas may also slow down or stop. Such events could have a material adverse effect on our business, results of operations and financial condition.

Changes in government control of currency conversion and in PRC foreign exchange regulations may adversely affect our business operations.

The PRC government imposes controls on the convertibility between Renminbi and foreign currencies and the remittance of foreign exchange out of China. Under existing PRC foreign exchange regulations, payments of current-account items may be made in foreign currencies without prior approval from the SAFE, by complying with certain procedural requirements.

Approval from appropriate governmental authorities, however, is required when Renminbi is converted into foreign currencies and remitted out of China for capital-account transactions, such as the repatriation of equity investment in China and the repayment of the principal of loans or debt denominated in foreign currencies. Such restrictions on foreign exchange transactions under capital accounts also affect our ability to finance our PRC subsidiaries. Subsequent to this offering, we have the choice, as permitted by the PRC foreign investment regulations and foreign exchange regulations, to invest our funds in the form of registered capital or a shareholder loan into our PRC subsidiaries to finance our operations in China. Our choice of investment is affected by the relevant PRC regulations with respect to capital-account and current-account foreign exchange transactions in China. In addition, our transfer of funds to our subsidiaries in China is subject to approval by PRC governmental authorities in the case of an increase in registered capital, and subject to prior record-filing and registration with PRC governmental authorities in case of shareholder loans to the extent that the regulations on external debt and cross-border financing as promulgated by the NDRC and PBOC are complied with, and the existing foreign investment approvals received by our PRC subsidiaries permit any such shareholder loans at all. These limitations on the flow of funds between us and our PRC subsidiaries could restrict our ability to act in response to changing market conditions.

Fluctuations in the value of Renminbi may adversely affect our business and the value of distributions by our PRC subsidiaries.

The Notes are denominated in U.S. dollars, while substantially all of our revenue is generated by our PRC operating subsidiaries and is denominated in Renminbi. The value of Renminbi against the U.S. dollar and other foreign currencies is subject to changes in the PRC's policies, as well as international economic and political developments.

On December 4, 2017, the foreign exchange trading center officially launched the matchmaking transaction mechanism between U.S. dollar and Renminbi. Matchmaking transactions can improve the price discovery mechanism in the domestic foreign exchange market and enrich participants of foreign exchange market in the medium and long term. Leading the two-way fluctuation of RMB increase gradually.

In 2019, two forces are determining the trend of Renminbi exchange rate. On the one hand, concerns about the global economic slowdown and the demand for risk averse prompted the U.S. dollar to rise against the RMB. On the other hand, the fluctuation of trade war and the progress of trade agreement affect the exchange rate.

At the beginning of 2020, COVID-19 shock had a great impact on exchange rate of Renminbi. Given the rising number of confirmed cases and widespread disruption to economic activities in global in the past months, policy easing will likely hold out for longer. Different from 2003 scenario, the conviction over CNY undervaluation is not so clear, and the current account position has deteriorated in recent years, making CNY more reliant on capital flows. Policy confidence and the current account could be everything when it comes to US$/CNY.

There are limited hedging instruments available in China to reduce our exposure to exchange rate fluctuations between the Renminbi and other currencies. To mitigate the potential loss associated with our foreign exchange exposure, we entered into various foreign currency derivative contracts ("Foreign Currency Derivatives") with certain financial institutions. As at December 31, 2019, the Foreign Currency Derivatives have a total notional amount of US$785 million, which enabled us to buy US$ at the predetermined RMB/US$ or HK$/US$ exchange rates on the maturity date. The net unrealized gain of such Foreign Currency Derivatives was approximately RMB161 million in 2019 (2018: RMB16 million), as included in the other gains and losses for 2019. There is no assurance that the hedging instruments we adopted, or plan to adopt, could achieve the expected benefits, or at all.

Under the EIT Law we may be classified as a "resident enterprise" of the PRC, which could result in unfavorable tax consequences to us.

Under the EIT Law, an enterprise established outside of China with "de facto management organization" located within China will be considered a PRC "resident enterprise" for PRC tax purposes and consequently will be treated in a manner similar to a Chinese enterprise for enterprise income tax purposes. The implementing rules of the EIT Law define "de facto management body" as a management body that exercises "substantial and overall management and control over the production and operations, personnel, accounting, and properties" of the enterprise. In April 2009, the State Administration of Taxation specified certain criteria for the determination of the "de facto management bodies" for foreign enterprises that are controlled by PRC enterprises. However, no definition of "de facto management body" has been provided for enterprises established offshore by individuals or foreign enterprises such as our Company. Although it is unclear under the PRC tax law whether we will be deemed as having a PRC "de facto management body" located in China for PRC tax purposes, to date we have not received any notice from any PRC tax authority treating us as a PRC "resident enterprise" for PRC tax purposes. If the PRC tax authorities determine that we are a "resident enterprise" for PRC enterprise income tax purposes, a number of unfavorable PRC tax consequences could follow. As our Company has obtained the Hong Kong tax resident identity certificate in accordance with the laws of Hong Kong and meet the conditions of the actual management organization in Hong Kong as stipulated by PRC tax law, we prudently judge that the risk of the company being recognized as a Chinese tax resident is very low. However, we may be subject to enterprise income tax at a rate of 25% on our worldwide taxable income as well as PRC enterprise income tax reporting obligations. In our case, this would mean that income from sources outside the PRC, such as income from any investment outside the PRC of any portion of the offering proceeds, would be subject to PRC enterprise income tax at a rate of 25%, whereas no direct tax is imposed on enterprises under the laws of the Cayman Islands.

Interest paid by us to our foreign investors and gain on the sale of our Notes may be subject to taxation under PRC tax laws.

Under the EIT Law and its implementation regulations, if we are deemed as a PRC "resident enterprise" for PRC tax purposes, PRC withholding tax at the rate of 10% may be applicable to interest paid by us to investors that are "non-resident enterprises" if such "non-resident enterprise" investors do not have an establishment or place of business in China or if, despite the existence of such establishment or place of business in China, the relevant income is not effectively connected with such establishment or place of business in China, if the interest is treated as income from sources within the PRC. In the case of non-resident individual investors, under the IIT Law and its implementation regulations, the tax may be withheld at a rate of 20%. Any gain realized on the transfer of the Notes by "non-resident enterprise" investors would be subject to a 10% PRC tax (or 20% in the case of non-resident individuals) if we were treated as a PRC "resident enterprise" and such gain is regarded as income derived from sources within China.

On March 23, 2016, the Ministry of Finance and the State Administration of Taxation of the PRC issued the "Notice on Comprehensively Carrying out the Pilot Project of the Value added Tax-for-Business Tax Reform" ("Circular 36"), which introduced a new Value added tax ("VAT") from May 1, 2016. Under Circular 36, VAT is applicable where entities or individuals provide or receive certain services within China. The services potentially subject to VAT include the provision of financial services such as the provision of loans. Circular 36 further clarifies that "loans" refers to the activity of lending capital for another's use and receiving the interest income thereon. Based on the definition of "loans" under Circular 36, holders of the Notes may be treated as providing financial services in the form of loans to the Company for VAT purposes. Although "resident enterprise" is a specific concept in China's EIT law, in the event the Company is deemed to be a PRC resident enterprise by the PRC tax authorities, the holders of the Notes may be regarded as providing financial services within China and consequently, the Company may be obligated to withhold VAT at a rate of six per cent., plus related local levies, for payments of interest and certain other amounts paid by the Company to Noteholder that are non-resident enterprises or individuals. VAT is unlikely to be applicable to any transfer of Notes between entities or individuals located outside China and therefore unlikely to be applicable to gains realized upon such transfers of Notes, but there is uncertainty as to the applicability of VAT if either the seller or buyer of Notes is located inside China. Circular 36 and other laws and regulations pertaining to VAT are relatively new and the interpretation and enforcement of such laws and regulations involve uncertainties.

If we were a PRC "resident enterprise" and were required under the EIT Law, IIT Law or Circular 36 and the implementation regulations in connection therewith to withhold PRC income tax or VAT on interest paid to non-resident holders of the Notes, we would be required, subject to certain exceptions, to pay such additional amounts as would result in receipt by a holder of the Notes of such amounts as would have been received by the holder had no such withholding been required. The requirement to pay additional amounts will increase the cost of servicing interest payments on the Notes, and could have a material adverse effect on our ability to pay interest on, and repay the principal amount of, the Notes, as well as our profitability and cash flow. In addition, if a holder of the Notes is required to pay PRC income tax or VAT on the transfer of our Notes, the value of such holder's investment in our Notes may be materially and adversely affected. It is unclear whether, if we were considered a PRC "resident enterprise," holders of our Notes could claim the benefit of income tax treaties or agreements entered into between China and other countries or areas.

We may be able to redeem the Notes in whole at a redemption price equal to 100% of the principal amount plus accrued and unpaid interest in the event that we are required to pay additional amounts because we are treated as a PRC "resident enterprise."

In the event that we are treated as a PRC tax "resident enterprise", we may be required to withhold PRC tax on interest paid to certain of our non-resident investors. In such case, we will, subject to certain exceptions, be required to pay such additional amounts as will result in receipt by a holder of the Notes of such amounts as would have been received by the holder had no such withholding been required. As described under the Description of the Notes, in the event that we are required to pay additional amounts as a result of certain changes in tax law, including any change in the existing position or the stating of an official position regarding the application or interpretation of such law, that results in our Company being required to withhold tax on interest payments as a result of our being treated as a PRC "resident enterprise," we may redeem the Notes in whole at a redemption price equal to 100% of the principal amount plus accrued and unpaid interest.

Our results of operations were, and may continue to be adversely affected by the replacement of business tax with VAT.

Our construction and installation fees used to be subject to a 3% business tax, whereas on March 23, 2016, the Ministry of Finance and the State Administration of Taxation of the PRC issued Circular 36, pursuant to which business tax has been completely replaced by VAT effective May 1, 2016. Currently, the construction and installation fees was subject to an 9% VAT pursuant to the Announcement No.39 issued by the General Administration of Taxation and the General Administration of Customs of the PRC on March 20, 2019. Nonetheless, some of our group entities were also subject to a 3% simplified rate pursuant to the tax regulation. We cannot assure you that we are able to pass the increased costs onto end users, and the levy of VAT on our construction and installation fees could affect our results of operation because of the material contribution of construction and installation fees to our revenue and profits.

PRC regulations relating to the establishment of offshore special purpose companies by PRC residents may adversely affect our business operations.

The State Administration of Foreign Exchange ("**SAFE**") promulgated the Circular on Relevant Issues Concerning Foreign Exchange Administration for PRC Residents to Engage in Offshore Investment and Financing and Round Trip Investment via Special Purpose Vehicles (the "**Circular 37**") and its implementation guidelines in July 2014, which abolishes and supersedes the SAFE's Circular on Relevant Issues Concerning Foreign Exchange Administration for PRC Residents to Engage in Offshore Financing and Round Trip Investment via Overseas Special Purpose Vehicles (the "**Circular 75**") and its related implementation rules and guidelines. Pursuant to the Circular 37 and its implementation guidelines, PRC residents (including PRC institutions and individuals) must register with local branches of SAFE in connection with their direct or indirect offshore investment in an overseas special purpose vehicle ("**SPV**") directly established or indirectly controlled by PRC residents for the purpose of offshore investment and financing with their legally owned asset or interests in domestic enterprises, or their legally owned offshore assets or interests. Such PRC residents are also required to amend their registration with SAFE when there is a significant change to the registered SPV, such as changes of its PRC resident individual shareholder, name, operation period or other basic information, the increase or decrease in the capital contribution by such PRC individuals in the SPV, any share transfer or exchange, merger or division of the SPV. Failure to comply with the registration procedures set forth in the Circular 37 may result in restrictions on the foreign exchange activities of our PRC subsidiaries, including the payment of dividends and other distributions to its offshore parent or affiliate, the capital inflow from the offshore entities and its settlement of foreign exchange capital, and may also subject the relevant onshore company or PRC residents to penalties under PRC foreign exchange administration regulations.

The beneficial owners of our Company, Mr. Wang Yusuo and Ms. Zhao Baoju, who are PRC residents, have made their individual overseas investment registrations required under Circular 75 with Hebei Branch of the SAFE on June 4, 2012. However, if Mr. Wang Yusuo or Ms. Zhao Baoju fail to update such individual overseas investment registration as required by Circular 37, or any other shareholder as PRC resident or controlled by a PRC resident is unable or fail to comply with Circular 37, such shareholder may be subject to fines and legal sanctions, the consequence of which may affect our business operations, particularly with respect to the ability of our PRC subsidiaries to remit foreign currency payments out of China, which could affect our ability to service our offshore indebtedness.

Interpretation of PRC laws and regulations involves uncertainty and the current legal environment in China could limit the legal protections available to you.

Our core business is conducted in China and is governed by PRC laws and regulations. Our principal operating subsidiaries are located in China and are subject to the PRC laws and regulations. The PRC legal system is a civil law system based on written statutes and prior court decisions have limited precedential value and can only be used as a reference. Additionally, PRC written laws are often principle-oriented and require detailed interpretations by the enforcement bodies to further apply and enforce such laws. Since 1979, the PRC legislature has promulgated laws and regulations in relation to economic matters such as foreign investment, corporate organization and governance, commercial transactions, taxation and trade, with a view to developing a comprehensive system of commercial law, including laws relating to the natural gas industry. Because these laws and regulations have not been fully developed and because of the limited volume of published cases and the non-binding nature of prior court decisions, interpretation of PRC laws and regulations involves a degree of uncertainty and the legal protection available to you may be limited. Depending on the governmental agency or the presentation of an application or case to such agency, we may receive less favorable interpretations of laws and regulations than our competitors. In addition, any litigation in China may be protracted and result in substantial costs and diversion of resources and management attention. These uncertainties may impede our ability to enforce the contracts we have entered into. Furthermore, such uncertainties, including the potential inability to enforce our contracts, together with any development or interpretation of PRC laws that is adverse to us, may materially and adversely affect our business, financial condition and results of operations.

We cannot guarantee the accuracy of facts, forecasts and other statistics with respect to China, the PRC economy, the PRC natural gas industry and the selected PRC regional data contained in this Offering Memorandum.

Facts, forecasts and other statistics in this Offering Memorandum relating to China, the PRC economy, the PRC natural gas industry and the selected PRC regional data have been derived from various official or other publications available in China and may not be consistent with other information compiled within or outside of China. We cannot guarantee, however, the quality or reliability of such source materials. The materials have not been prepared or independently verified by us, the Joint Lead Managers or any of our or their affiliates or advisors (including legal advisors), or other participants in this offering and, therefore, we make no representation as to the accuracy of such facts, forecasts and statistics. Due to possibly flawed or ineffective collection methods or discrepancies between published information and market practice, the facts, forecasts and statistics in this Offering Memorandum may be inaccurate or may not be comparable to facts, forecasts and statistics produced with respect to other economies. Further, we cannot assure you that they are stated or compiled on the same basis or with the same degree of accuracy as in other jurisdictions. Therefore, you should not unduly rely upon the facts, forecasts and statistics with respect to China, the PRC economy, the PRC natural gas industry and the selected PRC regional data contained in this Offering Memorandum.

RISKS RELATING TO THE NOTES

The Notes may not be a suitable investment for all investors.

Each potential investor in any Notes must determine the suitability of that investment in light of its own circumstances. In particular, each potential investor should:

- have sufficient knowledge and experience to make a meaningful evaluation of the relevant Notes, the merits and risks of investing in the relevant Notes and the information contained or incorporated by reference in this Offering Memorandum or any applicable supplement to the Offering Memorandum;

- have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation, an investment in the relevant Notes and the impact such investment will have on its overall investment portfolio;

- have sufficient financial resources and liquidity to bear all of the risks of an investment in the relevant Notes, including where principal or interest is payable in one or more currencies, or where the currency for principal or interest payments is different from the potential investor's currency;

- understand thoroughly the terms of the relevant Notes and be familiar with the behavior of any relevant indices and financial markets; and

- be able to evaluate (either alone or with the help of a financial adviser) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks.

Some Notes may be complex financial instruments and such instruments may be purchased as a way to reduce risk or enhance yield with an understood, measured, appropriate addition of risk to the purchaser's overall portfolios. A potential investor should not invest in Notes which are complex financial instruments unless it has the expertise (either alone or with the help of a financial adviser) to evaluate how the Notes will perform under changing conditions, the resulting effects on the value of such Notes and the impact this investment will have on the potential investor's overall investment portfolio. Additionally, the investment activities of certain investors are subject to legal investment laws and regulations, or review or regulation by certain authorities.

The Notes are unsecured obligations.

The Notes are unsecured obligations of the Company. The payment obligations under the Notes may be adversely affected if:

- the Company enters into bankruptcy, liquidation, reorganization or other winding-up proceedings;

- there is a default in payment under the Company's future secured indebtedness or other unsecured indebtedness; or

- there is an acceleration of any of the Company's indebtedness.

If any of these events were to occur, the Company's assets may not be sufficient to pay amounts due on the Notes.

Our subsidiaries are subject to restrictions on the payment of dividends and the repayment of intercompany loans or advances to us and our subsidiaries.

We are a holding company. Substantially all of our business operations are conducted through our wholly or partly owned subsidiaries, associates and joint ventures. Payments on the Notes are structurally subordinated to all existing and future liabilities and obligations of each of our subsidiaries, associates and joint ventures. Claims of creditors of such companies will have priority as to the assets of such companies over us and our creditors, including holders of the Notes. As a result, all of the existing and future liabilities of our subsidiaries, including any claims of trade creditors and preferred stockholders, will be effectively senior to the Notes. Our obligation to make payments on the Notes is solely our obligation and will not be guaranteed by any of our subsidiaries or associates and joint ventures.

As a holding company, we depend on the receipt of dividends and the interest and principal payments on intercompany loans or advances from our subsidiaries, including our PRC subsidiaries, to pay dividends to our shareholders and to satisfy our obligations, including our obligations under the Notes. The ability of our subsidiaries to pay dividends and make payments on intercompany loans or advances to their shareholders is subject to, among other things, distributable earnings, cash flow conditions, restrictions contained in the articles of association of our subsidiaries, restrictions contained in the shareholder agreements or joint venture agreements with our subsidiaries, and applicable laws and restrictions contained in the debt instruments or agreements of such subsidiaries. In addition, if any of our subsidiaries raises capital by issuing equity securities to third parties, dividends declared and paid with respect to such equity securities would not be available to us to make payments on the Notes. These restrictions could reduce the amounts that we receive from our subsidiaries, which would restrict our ability to meet our payment obligations under the Notes.

PRC laws and regulations permit payment of dividends only out of accumulated profits as determined in accordance with PRC accounting standards and regulations and such profits differ from profits determined in accordance with HKFRS in certain significant respects, including the use of different bases of recognition of revenue and expenses. Our PRC subsidiaries are also required to set aside a portion of their after-tax profits according to PRC accounting standards and regulations to fund certain reserves that are not distributable as cash dividends. In practice, our PRC project companies may pay dividends only after they have completed not only the project development, at least the development of a phase or a stand-alone tower or building, and the revenue recognition but also the required government tax clearance and foreign exchange procedures. In addition, dividends paid by our PRC subsidiaries to their non-PRC parent companies will be subject to a 10% withholding tax, unless there is a tax treaty between the PRC and the jurisdiction in which the overseas parent company is incorporated, which specifically exempts or reduces such withholding tax. Pursuant to an avoidance of double taxation arrangement between Hong Kong and the PRC, if the non-PRC parent company is a Hong Kong resident and directly holds a 25% or more interest in the PRC enterprise, such withholding tax rate may be lowered to 5% subject to approval by relevant PRC tax authorities, although there is uncertainty under a circular regarding whether intermediate Hong Kong holding companies will be eligible for benefits under this arrangement. As a result of such restrictions, there could be timing limitations on payments from our PRC subsidiaries to meet payments required by the Notes.

According to the Announcement of the SAT on Promulgating the Administrative Measures for Non-resident Taxpayers' Enjoyment of Treaty Benefits (the "Administrative Measures"), effective as of January 1, 2020, any non-resident taxpayer satisfies the conditions for the preferential treatment under the tax treaties may be entitled to enjoy the preferential treatment by itself/himself when filing a tax return or making a withholding declaration through a withholding agent, collect and retain relevant materials for review in accordance with the Administrative Measures, subject to the subsequent administration by the tax authorities. Where a competent tax authority, in the course of subsequent administration, deems that a non-resident taxpayer was not eligible for treaty benefits but nonetheless was subject to a lower treaty rate or otherwise underpaid tax in the PRC, unless it is the withholding agent that failed to file a withholding return in accordance with the Administrative Measures, it shall recover the taxes according to law and hold the non-resident taxpayer liable for its deferred tax payment.

Furthermore, we may use offshore shareholder loans, rather than equity contribution, to our PRC subsidiaries to finance their operations. In such events, the market interest rates that our PRC subsidiaries can pay with respect to offshore loans generally may not exceed comparable interest rates in the international finance markets. Our PRC subsidiaries are also required to pay a 10% (or 7% if the interest is paid to a Hong Kong resident) withholding tax on our behalf on the interest paid under any shareholder loan. Prior to payment of interest and principal on any such shareholder loan, the PRC subsidiaries (as foreign-invested enterprises in China) must present evidence of payment of the withholding tax on the interest paid on any such shareholder loan and evidence of registration with the SAFE, as well as any other documents that the SAFE or its local branch may require.

As a result of the foregoing, we cannot assure you that we will have sufficient cash flow from dividends or payments on intercompany loans or advances from our subsidiaries to satisfy our obligations under the Notes.

Gains on the transfer of the Notes may be subject to income tax under PRC tax laws.

Gains on the transfer of the Notes may be subject to income tax under PRC tax laws. In accordance with the EIT Law and its implementation regulations, a non-PRC resident enterprise is generally subject to enterprise income tax at a rate of 10% with respect to PRC-sourced income if it (i) does not have an establishment or place of business in the PRC or (ii) has an establishment or place of business in the PRC but its PRC-sourced income is not connected with such establishment or place of business in the PRC. This tax could be exempted or reduced in accordance with the relevant tax treaty or agreement for avoiding double taxation. The aforesaid income tax payable by a non-PRC resident enterprise is subject to withholding at source. However, as at the date of this Offering Memorandum, no specific legislation or implementation rules have expressly provided whether it is required to and how to collect the tax from non-PRC resident enterprises on gains derived by them from the sale or transfer of the Notes. Taxation authorities may promulgate specific implementation rules or regulations for the collection of enterprise income tax on such gains in the future.

In addition, according to the IIT Law and the implementation regulations, non-PRC resident individuals are generally subject to individual income tax at a rate of 20% with respect to PRC-sourced income from transfer of property unless such tax is reduced or exempted under relevant double taxation treaties. Under the IIT Law, a "non-PRC resident individual" means any non-resident PRC individual who has no domicile and does not reside in the PRC or who has no domicile but has resided in China in the aggregate for less than 183 days of a tax year. As at the date of this Offering Memorandum, no specific legislation or implementation rules have expressly provided whether it is required to and how to collect the tax from non-PRC resident individuals on the gains derived by them from the sale or transfer of the Notes. Taxation authorities may promulgate specific implementation rules or regulations for the collection of individual income tax on such gains in the future.

If a Noteholder, being a non-PRC resident enterprise or non-PRC resident individual, is subject to PRC income tax on gains on the transfer of the Notes, the value of the relevant Noteholders' investment in the Notes may be materially and adversely affected. See "*Taxation — PRC Taxation.*"

The return on the Notes may decrease due to inflation.

The Noteholders may suffer erosion on the return of their investments due to inflation. The Noteholders would have an anticipated rate of return based on expected inflation rates on the purchase of the Notes. An unexpected increase in inflation could reduce the actual returns.

There can be no assurance that use of proceeds of the Notes to finance Eligible Green Projects will be suitable for the investment criteria of an investor.

It is the Company's intention to apply an amount equal to the proceeds from the offer of the Notes specifically for Eligible Green Projects (as defined under "Use of Proceeds" below). Prospective investors should have regard to the information set out in this Offering Memorandum regarding such use of proceeds and must determine for themselves the relevance of such information for the purpose of any investment in the Notes together with any other investigation such investor deems necessary. In particular no assurance is given by the Company or any Initial Purchaser that the use of such proceeds for any Eligible Green Projects will satisfy, whether in whole or in part, any present or future investor expectations or requirements as regards any investment criteria or guidelines with which such investor or its investments are required to comply, whether by any present or future applicable law or regulations or by its own by-laws or other governing rules or investment portfolio mandates, in particular with regard to any direct or indirect environmental, sustainability or social impact of any projects or uses, the subject of or related to, any Eligible Green Projects.

Furthermore, it should be noted that there is currently no clearly defined definition (legal, regulatory or otherwise) of, nor market consensus as to what constitutes, a "green", "social", "sustainable" or an equivalently labelled project or as to what precise attributes are required for a particular project to be defined as "green", "social", "sustainable" or such other equivalent label nor can any assurance be given that such a clear definition or consensus will develop over time. Accordingly, no assurance is or can be given to investors that any projects or uses the subject of, or related to, any Eligible Green Projects will meet any or all investor expectations regarding such "green", "social", "sustainable" or other equivalently-labelled performance objectives or that any adverse environmental, social and/or other impacts will not occur during the implementation of any projects or uses the subject of, or related to, any Eligible Green Projects.

In the event that the Notes are listed or admitted to trading on any dedicated "green", "environmental", "social", "sustainable" or other equivalently-labelled segment of any stock exchange or securities market (whether or not regulated), no representation or assurance is given by the Company or any Initial Purchaser or any other person that such listing or admission satisfies, whether in whole or in part, any present or future investor expectations or requirements as regards any investment criteria or guidelines with which such investor or its investments are required to comply, whether by any present or future applicable law or regulations or by its own by-laws or other governing rules or investment portfolio mandates, in particular with regard to any direct or indirect environmental, social or sustainability impact of any projects or uses, the subject of or related to, any Eligible Green Projects. Furthermore, it should be noted that the criteria for any such listings or admission to trading may vary from one stock exchange or securities market to another. Nor is any representation or assurance given or made by the Company or any Initial Purchaser or any other person that any such listing or admission to trading will be obtained in respect of any such Notes or, if obtained, that any such listing or admission to trading will be maintained during the life of the Notes.

While it is the intention of the Company to apply the proceeds of the Notes for Eligible Green Projects in, or substantially in, the manner described under "Use of Proceeds", there can be no assurance that the relevant project(s) or use(s) the subject of, or related to, any Eligible Green Projects will be capable of being implemented in or substantially in such manner and/or accordance with any timing schedule and that accordingly such proceeds will be totally or partially disbursed for such Eligible Green Projects. Nor can there be any assurance that such Eligible Green Projects will be completed within any specified period or at all or with the results or outcome (whether or not related to the environment) as originally expected or anticipated by the Company. Any such event or failure by the Company will not constitute an Event of Default (as defined herein) under the Notes.

Any such event or failure to apply the proceeds of the issue of Notes for any Eligible Green Projects as aforesaid and/or withdrawal of any such opinion or certification or any such opinion or certification attesting that the Company is not complying in whole or in part with any matters for which such opinion or certification is opining or certifying on and/or any Notes no longer being listed or admitted to trading on any stock exchange or securities market as aforesaid may have a material adverse effect on the value of the Notes and/or result in adverse consequences for certain investors with portfolio mandates to invest in securities to be used for a particular purpose.

The insolvency laws of the Cayman Islands and other local insolvency laws may differ from those of any other jurisdiction with which holders of the Notes are familiar.

Because we are incorporated under the laws of the Cayman Islands, an insolvency proceeding relating to us, even if brought in other jurisdictions, would likely involve Cayman Islands insolvency laws, the procedural and substantive provisions of which may differ from comparable provisions of bankruptcy law in other jurisdictions. We conduct substantially all of our business operations through PRC-incorporated subsidiaries in China. The PRC laws and regulations relating to bankruptcy and insolvency and the legal proceedings in that regard may significantly differ from those of other jurisdictions with which the holders of the Notes are familiar. You should analyze the risks and uncertainties carefully before you invest in the Notes.

If we are unable to comply with the restrictions and covenants in our debt agreements or the Indenture, there could be a default under the terms of these agreements or the Indenture, which could cause repayment of our debt to be accelerated.

We are subject to restrictions and covenants in the Indenture governing the Notes and certain of our prior debt obligations including but not limited to the 2011 Senior Notes and the 2017 Bonds. If we are unable to comply with the restrictions and covenants in the Indenture governing the Notes, or our current or future debt obligations and other agreements, there could be a default under the terms of these agreements. In the event of a default under these agreements, the holders of the debt could terminate their commitments to lend to us, accelerate repayment of the debt and declare all amounts borrowed due and payable or terminate the agreements, as the case may be. Furthermore, some of our debt agreements contain cross-acceleration or cross-default provisions. As a result, our default under one debt agreement may cause the acceleration of repayment of not only such debt but also other debt or result in a default under our other debt agreements. If any of these events occur, we cannot assure you that our assets and cash flow would be sufficient to repay in full all of our indebtedness, or that we would be able to find alternative financing. Even if we could obtain alternative financing, we cannot assure you that it would be on terms that are favorable or acceptable to us.

Our operations are restricted by the terms of the Notes and other debt agreements, which could limit our ability to plan for or to react to market conditions or meet our capital needs, which could increase your credit risk.

Our current debt obligations and the terms of the Notes include a number of significant restrictive covenants. These covenants restrict, among other things, our ability, and the ability of our restricted subsidiaries, to:

- incur certain indebtedness;
- make investments or other specified restricted payments;
- create, permit to exist or to effect any restrictions on distributions from restricted subsidiaries;
- sell assets;
- enter into transactions with affiliates;
- create liens;
- enter into sale and leaseback transactions; and
- merge or consolidate with another company.

These covenants could limit our ability to plan for or react to market conditions or to meet our capital needs. Our ability to comply with these covenants may be affected by events beyond our control, and we may have to curtail some of our operations and growth plans to maintain compliance.

The Notes do not contain restrictive financial or operating covenants.

The Indenture will contain various covenants intended to benefit the interests of holders of the Notes and that limit our ability to, among other things, incur liens and consolidate or merge with or into, or transfer substantially all of our assets to, another person.

These covenants are subject to a number of important exceptions and qualifications. For more details, see "*Description of the Notes.*" The Indenture, however, does not contain restrictive financial or operating covenants or restrictions on the payments of dividends, the incurrence of indebtedness or the issuance or repurchase of securities by us. In addition, the Indenture does not contain any other covenants or provisions designed to afford holders of the Notes protection in the event of a highly leveraged transaction involving us or in the event of a decline in our credit rating or the rating of the Notes as the result of a takeover, recapitalization, highly leveraged transaction or similar restructuring involving us that could adversely affect such holders. Subject to the terms of our existing corporate debt and other credit facilities, we may incur substantial additional indebtedness in the future.

We may not be able to repurchase the Notes upon a change of control.

Upon the occurrence of a change of control, the holder of each Note will have the option to require us to redeem all or some of the holder's Bonds at a purchase price equal to 101% of the principal amount plus accrued and unpaid interest, if any, to the date of purchase. See "*Description of the Notes.*"

The source of funds for any such purchase would be our available cash or third-party financing. We may not, however, have enough available funds at the time of the occurrence of any change of control to redeem the outstanding Bonds. Our failure to make the offer to redeem or to redeem the outstanding Bonds would constitute an event of default under the Notes. The event of default may, in turn, constitute an event of default under other indebtedness, any of which could cause the related debt to be accelerated after any applicable notice or grace periods. If our other debt were to be accelerated, we may not have sufficient funds to redeem the Notes and repay the debt.

In addition, the definition of change of control for purposes of the Indenture governing the Notes does not necessarily afford protection for the holders of the Notes in the event of some highly leveraged transactions, including certain acquisitions, mergers, refinancings, restructurings or other recapitalizations, although these types of transactions could increase our indebtedness or otherwise affect our capital structure or credit ratings. The definition of change of control for purposes of the Indenture governing the Notes also includes a phrase relating to the sale of "all or substantially all" of our assets. Although there is a limited body of case law interpreting the phrase "substantially all," there is no precise established definition under applicable law. Accordingly, our obligation to make an offer to purchase the Notes, and the ability of a holder of the Notes to require us to purchase its Bonds pursuant to the offer as a result of a highly-leveraged transaction or a sale of less than all of our assets may be uncertain.

We may elect to redeem the Notes prior to their maturity.

Pursuant to the terms of the Notes, we may elect to redeem the Notes prior to their maturity in whole but not in part at the price specified in of the Description of the Notes.

The optional redemption feature is likely to limit the market value of the Notes. During any period when we may elect to redeem the Notes, the market value of the Notes will generally not rise substantially above the price at which they can be redeemed. This may also be true prior to any redemption period.

We are likely to redeem the Notes when the cost of borrowing is lower than the interest rate on the Notes. At those times, an investor would generally not be able to reinvest the redemption proceeds at an effective interest rate as high as the interest rate on the Notes being redeemed and may only be able to do so at a significantly lower rate. Potential investors should consider reinvestment risk in light of other investments available at that time.

A trading market for the Notes may not develop and there are restrictions on resale of the Notes.

The Notes are a new issue of securities for which there is currently no trading market. Application is expected to be made to the Hong Kong Stock Exchange for listing of, and permission to deal in, the Notes by way of debt issues to Professional Investors only. None of the Joint Lead Managers is obligated to make a market in the Notes, and if the Joint Lead Managers do so they may discontinue such market-making activity at any time without notice. Further, the Notes may be allocated to a limited number of investors, in which case liquidity may be limited. In addition, the Notes are being offered pursuant to exemptions from registration under the U.S. Securities Act and, as a result, the holders of the Notes will only be able to resell the Notes in transactions that have been registered under the U.S. Securities Act or in transactions not subject to or exempt from registration under the U.S. Securities Act. It is your obligation to ensure that your offers and sales of the Notes within the United States and other counties comply with applicable securities laws. See "*Plan of Distribution*" for more details. The Company cannot predict whether an active trading market for the Notes will develop or be sustained.

The liquidity and price of the Notes following the offering may be volatile.

The price and trading volume of the Notes may be highly volatile. Factors such as variations in our revenues, earnings and cash flows, proposals for new investments, strategic alliances and/or acquisitions, changes in interest rates, fluctuations in price for comparable companies, government regulations and changes thereof applicable to our industry and general economic conditions nationally or internationally could cause the price of the Notes to change. Since the sub-prime mortgage crisis in 2008, the international financial markets have experienced significant volatility. In addition, the outcome of the referendum in the United Kingdom in June 2016 in which the majority of voters voted in favor of leaving the European Union could adversely affect European and worldwide economic and market conditions and could contribute to volatility in the global financial and foreign exchange markets. The referendum has also given rise to calls for the governments of other European Union member states to consider withdrawal. These developments, or the perception that any of them could occur, may significantly reduce global market liquidity and restrict the ability of key market participants to operate in certain financial markets, which may have an adverse impact on the market price and trading volume of the Notes. If similar developments occur in the international financial markets in the future, the liquidity and price of the Notes could be adversely affected.

The ratings assigned to the Company and the Notes may be lowered or withdrawn in the future.

The Company is rated "Baa2" by Moody's with stable outlook, "BBB" by with stable outlook and "BBB" by Fitch with stable outlook. The Notes are expected to be rated "Baa2" by Moody's, "BBB" by S&P and "BBB" by Fitch. The ratings assigned to us and expected to be assigned to the Notes address our ability to perform our obligations under the Notes respectively and the associated credit risks in determining the likelihood that payments will be made when due. A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time. We cannot assure you that the ratings will be confirmed or they will remain for any given period of time or that a rating will not be lowered or withdrawn entirely by the relevant rating agency if in its judgment circumstances in the future so warrant. We have no obligation to inform holders of the Notes of any such revision, downgrade or withdrawal. A suspension, reduction or withdrawal at any time of the rating assigned to the Company or the Notes may adversely affect the market price of the Notes.

There is uncertainty as to whether the courts of China would enforce judgments of U.S. courts or entertain original actions brought in China.

The Notes and the Indenture are each governed by the laws of the State of New York. Judgments of foreign courts, including New York courts, are unlikely to be recognized or enforced in the PRC unless there is a treaty between the PRC and the country where the judgment is made or on reciprocity between jurisdictions. The PRC does not have any treaties or other agreements that provide for reciprocal recognition and enforcement of foreign judgments with the United States. As a result, there is uncertainty as to whether the courts of China would enforce judgments of U.S. courts or entertain original actions brought in China.

Since the Notes will initially be issued in book-entry form, holders must rely on DTC's procedures to receive communications relating to the notes and exercise their rights and remedies.

We will initially issue the notes in the form of one or more global notes registered in the name of Cede & Co., as nominee of DTC. Beneficial interests in global notes will be shown on, and transfers of global notes will be effected only through, the records maintained by DTC. Except in limited circumstances, we will not issue certificated notes. See "*Description of the Notes—Notes; Delivery and Form.*" Accordingly, if you own a beneficial interest in a global note, then you will not be considered an owner or holder of the notes. Instead, DTC or its nominee will be the sole holder of global notes. Unlike persons who have certificated notes registered in their names, owners of beneficial interests in global notes will not have the direct right to act on our solicitations for consents or requests for waivers or other actions from holders. Instead, those beneficial owners will be permitted to act only to the extent that they have received appropriate proxies to do so from DTC or, if applicable, a DTC participant. The applicable procedures for the granting of these proxies may not be sufficient to enable owners of beneficial interests in global notes to vote on any requested actions on a timely basis. In addition, notices and other communications relating to the notes will be sent to DTC. We expect DTC to forward any such communications to DTC participants, which in turn would forward such communications to indirect DTC participants. But we can make no assurances that you timely will receive any such communications.

There may be less publicly available information about us than is available for public companies in certain other jurisdictions.

We will follow the applicable disclosure standards for debt securities listed on the Hong Kong Stock Exchange, which standards may be different from those applicable to companies in certain other countries. The level and timeliness of information that is available may not correspond to what investors of the Notes are accustomed to. The Company is listed on the Hong Kong Stock Exchange. There may be less publicly available information about companies listed in Hong Kong than is regularly made available by public companies in certain other jurisdictions. In addition, our financial statements are prepared and presented in accordance with HKFRS, which differ in certain significant respects from generally accepted accounting principles or other accounting standards in other jurisdictions, which might be material to the financial information contained in this Offering Memorandum. We have not prepared a reconciliation of our consolidated financial statements and related footnotes between HKFRS and generally accepted accounting principles or other accounting standards in other jurisdictions. In making an investment decision, you must rely upon your own examination of us, the terms of the offering and our financial information. You should consult your own professional advisors for an understanding of the differences between HKFRS and generally accepted accounting principles and other accounting standards in other jurisdictions and how those differences might affect the financial information contained in this Offering Memorandum.

The Trustee may request holders of the Notes to provide an indemnity and/or security and/or prefunding to its satisfaction.

In certain circumstances, including without limitation giving of notice to the Company and taking enforcement steps pursuant to the Description of the Notes, the Trustee may, at its sole discretion, request holders of the Notes to provide an indemnity and/or security and/or prefunding to its satisfaction before it takes actions on behalf of holders of the Notes. The Trustee shall not be obliged to take any such actions if not indemnified and/or secured and/or prefunded to its satisfaction. Negotiating and agreeing to an indemnity and/or security and/or prefunding can be a lengthy process and may impact on when such actions can be taken. The Trustee may not be able to take actions, notwithstanding the provision of an indemnity or security or prefunding to it, in breach of the terms of the Indenture (as defined in the Description of the Notes) or the Description of the Notes or in circumstances where there is uncertainty or dispute as to the applicable laws or regulations and, to the extent permitted by the agreements and the applicable law, it will be for the holders of the Notes to take such actions directly.

Decisions that may be made on behalf of all holders of the Notes may be adverse to the interests of individual holders of the Notes.

The Description of the Notes contains provisions for calling meetings of holders of the Notes to consider matters affecting their interests generally. These provisions permit defined majorities to bind all holders of the Notes including holders who did not attend and vote at the relevant meeting and holders who voted in a manner contrary to the majority. Furthermore, there is a risk that the decision of the majority of holders of the Notes may be adverse to the interests of the individuals.

The Notes will be structurally subordinated to all of our secured debt and if a default occurs, we may not have sufficient funds to fulfill our obligations under the Notes.

The Notes are general senior unsecured obligations that rank equally in right of payment with all of our existing and future unsecured and unsubordinated indebtedness, including our short-term debentures. The Notes will be structurally subordinated to all our secured indebtedness and other obligations to the extent of the value of the assets securing that indebtedness and other obligations. As of December 31, 2019, we had approximately RMB223 million of secured indebtedness. In addition, the Indenture will, subject to some limitations, permit us to incur additional secured indebtedness and your Notes will be effectively junior to any additional secured indebtedness we may incur.

In the event of our bankruptcy, liquidation, reorganization or other winding up, our assets that secure our secured indebtedness will be available to pay obligations on the Notes only after all secured indebtedness, together with accrued interest, has been repaid in full from our assets. If we are unable to repay our secured indebtedness, the lenders could foreclose on substantially all of our assets which serve as collateral. In this event, our secured lenders would be entitled to be repaid in full from the proceeds of the liquidation of those assets before those assets would be available for distribution to other creditors, including holders of the Notes. Holders of the Notes will participate in the proceeds of the liquidation of our remaining assets ratably with all holders of our unsecured indebtedness that is deemed to be of the same class as the Notes, and potentially with all of our other general creditors. We advise you that there may not be sufficient assets remaining to pay amounts due on any or all the Notes when outstanding.

We may incur substantial additional indebtedness in the future, which could adversely affect our financial health.

We may from time to time incur substantial additional indebtedness. If we or any of our subsidiaries incur additional debt, the risks that we face as a result of such indebtedness and leverage could intensify. The amount of our indebtedness could have important consequences to holders of our Notes. For example, it could:

- limit our ability to satisfy our obligations under the Notes and other debt;
- increase our vulnerability to adverse general economic and industry conditions;
- require us to dedicate a substantial portion of our cash flow from operations to servicing and repaying our indebtedness, thereby reducing the availability of our cash flow to fund working capital, capital expenditures and other general corporate purposes;
- limit our flexibility in planning for or reacting to changes in our businesses and the industry in which we operate;
- place us at a competitive disadvantage compared to our competitors that have less debt;
- limit, along with the financial and other restrictive covenants of our indebtedness, among other things, our ability to borrow additional funds; and
- increase the cost of additional financing.

We may not be able to generate sufficient cash to satisfy our outstanding and future debt obligations.

Our ability to generate sufficient cash to satisfy our outstanding and future debt obligations will depend upon our future operating performance, which will be affected by prevailing economic conditions and financial, business and other factors, many of which are beyond our control. We anticipate that our operating cash flow will be sufficient to meet our anticipated operating expenses and to service our debt obligations as they become due. We may not, however, generate sufficient cash flow for these purposes. If we are unable to service our indebtedness, we will be forced to adopt an alternative strategy that may include actions such as reducing or delaying capital expenditures, selling assets, restructuring or refinancing our indebtedness or seeking equity capital. These strategies may not be instituted on satisfactory terms, if at all.

Holders of the Notes may be unable to enforce their rights under U.S. bankruptcy law.

We are incorporated in the Cayman Islands and have been advised by our Cayman Islands counsel, Maples and Calder (Hong Kong) LLP, that although there is no statutory enforcement in the Cayman Islands of judgments obtained outside of the Cayman Islands, the courts of the Cayman Islands will, based on the principle that a judgment by a competent foreign court imposes upon the judgment debtor an obligation to pay the sum for which judgment has been given, recognize as the basis for a claim at common law in the Cayman Islands a foreign judgment of a court of competent jurisdiction if such judgment is final, for a liquidated sum not in respect of taxes or a fine or penalty, is not inconsistent with a Cayman Islands judgment in respect of the same matters and was not obtained in a manner, and is not of a kind the enforcement of which is, contrary to the public policy of the Cayman Islands. A Cayman Islands court may stay proceedings if concurrent proceedings are being brought elsewhere.

The insolvency laws of the Cayman Islands and other local insolvency laws may differ from U.S. bankruptcy law or those of another jurisdiction with which holders of the Notes are familiar.

Because we are incorporated under the laws of the Cayman Islands, an insolvency proceeding relating to us, even if brought in the United States, would likely involve Cayman Islands insolvency laws, the procedural and substantive provisions of which may differ from comparable provisions of United States federal bankruptcy law.

USE OF PROCEEDS

The net proceeds of the Notes will be approximately U.S.$739 million. The Company intends to use the net proceeds of the Notes for the refinancing of certain existing indebtedness of the Group and to fund and/or refinance capital or operating expenditures, including, without limitations, the research and development, construction, acquisition and operations on new or existing Eligible Green Projects (as defined below) that promote a green and low-carbon economy, improve pollution control and energy efficiency and provide clear environmental sustainability and climate change benefits in accordance with certain prescribed eligibility criteria as described under the Green Finance Framework. See "Green Finance Framework" and "Eligible Green Projects" for more details.

Eligible Green Projects have each been defined in accordance with the broad categorization of eligibility for "Green Eligible Categories" as set out in the section headed "Green Finance Framework."

"Eligible Green Projects" are those which comprise financing within the Green Eligible Categories set out in the Green Finance Framework which, amongst other things, comply with the Green Bond Principles set by International Capital Market Association and updated in 2018 ("Green Bond Principles") and the Sustainable Development Goals set by the United Nations on September 25, 2015 (the "SDGs"). Such Green Eligible Categories include those which relate to: renewable energy; pollution prevention and control; energy efficiency; sustainable water treatment and green buildings. Activities within and/or financings to industries involved in, among others, coal-based energy generation and distribution infrastructure for such energy, large-scale hydro power plants, nuclear fuels and activities which are in relation to hazardous chemicals and radioactive substance are specifically excluded (the "Exclusionary Criteria") from this definition.

Assets in all eligible categories shall reach the minimum threshold required by relevant official standards in relation to environmental impacts recognized in the relevant jurisdiction. Where no official standards are locally recognized, corresponding international standards and best practices shall apply.

The Joint Lead Managers have not separately verified nor will make any assurances as to (i) whether the Notes will meet investor criteria and expectations regarding environmental impact for any investors, (ii) whether the net proceeds will be used to finance and/or refinance Eligible Green Projects, or (iii) the characteristics of Eligible Green Projects, including their environmental criteria. See "*Risk Factors*" for more details.

GREEN FINANCE FRAMEWORK

The Company has established a green finance framework (the "Green Finance Framework") in accordance with (i) the Green Bond Principles and (ii) the Green Loan Principles.

The Green Finance Framework is made available on the Company's website at www.ennenergy.com.

Management Statement

The Company has always been clearly positioned to develop its business in the clean energy industry, taking the harmonious development of energy and the environment as its responsibility, and striving to find clean, efficient and innovative solutions for the energy issues in China and the world. The Company believes that adhering to sustainable development enables people to have a better living environment, having actively promoted the use of natural gas, a clear fuel, to replace coal and other fossil fuels with high emissions. At the same time, the Company vigorously developed integrated energy business which was based on the concept of "integrating multiple energy forms, adapting to local conditions," to tailor-make integrated energy solutions according to customers' energy needs, and reduced the total cost of energy consumption for customers while improving energy efficiency and reducing emission.

In March 2019, the Company established a committee (the "ESG Committee"), chaired by the Chief Executive Officer, and comprises of an Executive Director, a Non-Executive Director and an Independent Non-Executive Director, to support the Board in formulating environmental, social and governance ("ESG") strategy of the Group and supervise the implementation of ESG initiatives. The Company has also established an ESG information system with multiple functions, including reporting, reviewing, investigating, and analyzing ESG information, real-time monitoring the fulfilling and practice of responsibility carried out by headquarter and subsidiaries. It aims to enhance the awareness of performing duties and sustainable development management level.

For the past three years, the total amount of funds allocated to green initiatives such as clean energy, energy-saving and emission-reduction, environmental protection, pollution control and other projects with low-carbon environmental characteristics such as information technology which require refinancing reached US$600,000,000.

The Company has developed the Green Finance Framework to enable the Group to fund projects that will deliver environmental and social benefits to support the Company's business strategies and vision. The Green Finance Framework intends to contribute to three main environmental objectives, namely climate change mitigation, pollution prevention and control and energy efficiency improvement.

Eligible Projects List

The net proceeds of the issuance of any relevant green bond will be allocated exclusively to finance and/or refinance, the Company's own operational activities in new or existing Eligible Green Projects in one or more of the following categories ("Green Eligible Categories"):

- **Renewable energy:** generation of energy from renewable sources including wind, solar, seawater heat pump, biomass, small scale hydropower and geothermal, transmission and distribution projects with the sole purpose of connecting renewable energy production and development of boilers powered by biomass, which only utilize agricultural and forestry waste;

- **Pollution prevention and control and Energy efficiency:** natural gas leakage detection systems, including installing Cloud Intelligent Safety Management System; reuse of industrial residual heat and steam for downstream production limited to construction and operation of pipelines to collect waste heat and associated infrastructure for heat distribution; installation of residual gas recovery devices on LNG transportation trucks and LNG refueling stations; and tailor-made integrated energy solutions to help improve energy efficiency through ENN Ubiquitous Energy Network;

- **Sustainable water management:** the installation of drainage canals in construction sites to discharge waste water into urban sewage pipelines if emission standards are met, the installation of mud pools to avoid infiltrating into groundwater or rivers, the use of reclaimed water and rainwater in production process and adoption of water-saving appliances to reduce water consumption; and

- **Green buildings:** the renovation of buildings (including industrial premises) certified in accordance with any one of the selected certification systems (including Chinese Green Building Evaluation Label (GBL) with a requirement of 2 stars or above and U.S. Leadership in Energy and Environmental Design (LEED) with a requirement of gold or above) and on-site renewable energy installations leading to an energy use reduction of at least 15%.

Project Evaluation and Selection

The Company will follow the procedures below to evaluate and select potential financing of Eligible Green Projects:

1. Preliminary Screening

A dedicated ESG working group (the “EWG”) has been set up, comprised of the senior members and representatives from the various departments including the chief financial officer, company secretary, head of Investor Relations department, Quality, Health, Safety and Environment department and Human Resources department. EWG will meet at least every 12 months to discuss and select potential eligible green projects meeting the criteria set out in the “Eligible Green Projects” definition and in accordance with the Green Eligible Categories as described above. ESG Committee will work with finance, risk management, IT and other relevant functional departments to ensure there is sufficient data and information for proper assessment, and will form a list of nominated projects which will be submitted to the ESG Committee for review. Activities within and/or financings to industries involved in, the Exclusionary Criteria, mainly sectors which are prohibited by laws and regulation in China, such as child labour, gambling industry, adult entertainment and corporations which are in association with illegal activities, are excluded from the project list.

2. Review and Approval

The ESG Committee, chaired by the chief executive officer and comprised of an executive director, a non-executive director and an independent non-executive director was formed in 2019 to support the Board in formulating ESG strategy of the Group and supervise the implementation of ESG initiatives. It shall review each of the nominated projects for approval as Eligible Green Projects. The approved projects will form an eligible projects list (the “Eligible Projects List”).

The ESG Committee will select the Eligible Green Projects that fall within the eligibility criteria and other factors as set out in the Green Finance Framework, such as whether the projects comply with the overall development and sustainability policy and strategy of the Company, and whether any clear and measurable environmental benefits can be attained.

3. Update and Maintenance

In addition, EWG will be responsible for managing any future updates of the Green Finance Framework, including any expansion of requirements of use of proceeds. In case of divestments or if an Eligible Green Project no longer meets the eligibility criteria, the funds will be reallocated to other Eligible Green Projects. EWG shall review the Eligible Projects List on an annual basis and determine if any changes are necessary (for example, if a project has amortized, been prepaid, sold or otherwise become ineligible). EWG will decide any necessary update of the Eligible Projects List (such as replacement, deletion, or addition of projects) to maintain the eligibility of the use of proceeds raised from each relevant green bond.

Management of Proceeds

1. *Planning for Use of Proceeds*

The Company shall continuously evaluate the recent and pipeline capital spending and develop a preliminary Eligible Projects List in accordance with the procedures described above to ensure that the proceeds of each green bond can be allocated to Eligible Green Projects in a timely manner.

2. *Management of Register*

The Company shall establish and maintain a register to record and keep track of the allocation of proceeds. The proceeds of each green bond will be deposited in the general funding accounts and earmarked pending allocation.

The register would contain detailed information of the capital source (such as the issue amount, coupon rate, issue date, maturity date and ISIN of each green bond) and the capital allocation (such as the issuer or borrower description, transaction date, interest rate of the loan and repayment or amortization profile). The register would also contain information including the remaining balance of unallocated proceeds yet to be earmarked and other relevant information such as information on the temporary investment for unallocated proceeds, to ensure that the aggregate of issuance proceeds allocated to the Eligible Green Projects is recorded at all times.

3. *Use of Unallocated Proceeds*

Any balance of issuance proceeds which are not yet allocated to Eligible Green Projects will be held in accordance with the Company's liquidity guidelines for short term time deposits or investments or used to repay existing borrowings within the Group. The Company commits not to invest temporary unallocated proceeds to sectors and activities specified in the Exclusionary Criteria as described above.

Reporting

1. *Allocation Reporting*

As long as any green bonds are outstanding, the Company intends to maintain the transparency of information disclosure following the best practices recommended by the Green Bond Principles. Accordingly, the Company will provide information on an annual basis on amounts equal to the net proceeds of each green bond issued and provide:

(i) key information including issuer/borrower entity, transaction date, number of transactions, principal amount of proceeds, maturity date and interest or coupon (and in the case of bonds, the ISIN number);

(ii) the aggregate amount allocated to the various Eligible Green Projects;

(iii) the amount and/or percentage of new and existing projects (share of financing and refinancing);

(iv) the remaining balance of funds which have not yet been allocated and the type of temporary investment for unallocated proceeds; and

(v) examples of Eligible Green Projects (subject to confidentiality disclosures).

2. Impact Reporting

Where possible, the Company will report on the environmental impacts resulting from Eligible Green Projects funded by any green bond.

Information on its green bonds and Eligible Green Projects will be disclosed in the Company's annual Environmental, Social and Governance Report, Annual Report or on the official website of the Company.

3. External Review

The Company has engaged Vigeo Eiris, an independent party, on an ongoing basis to act as an external reviewer of the Green Finance Framework, to provide independent review and verification of such framework against the Green Bond Principles and to provide a Second Party Opinion. External review will cover pre-issuance assurance, an assurance report on the Green Finance Framework, issued by Vigeo Eiris. The Company has also engaged Hong Kong Quality Assurance Agency ("HKQAA") to provide an independent certification in respect of the Notes, under HKQAA's Green Finance Certification Scheme. The external review report will be publicly available at www.ennenergy.com.

EXCHANGE RATE INFORMATION

CHINA

PBOC sets and publishes daily a base exchange rate with reference primarily to the supply and demand of Renminbi against a basket of currencies in the market during the prior day. PBOC also takes into account other factors, such as the general conditions existing in the international foreign exchange markets.

On July 21, 2005, the PRC government introduced a managed floating exchange rate system to allow the value of the Renminbi to fluctuate within a regulated band based on market supply and demand and by reference to a basket of currencies. On the same day, the value of the Renminbi appreciated by approximately 2% against the U.S. dollar. On May 18, 2007, PBOC enlarged the floating band for the trading prices in the inter-bank foreign exchange market of the Renminbi against the U.S. dollar from 0.3% to 0.5% around the central parity rate, effective May 21, 2007. This allows the Renminbi to fluctuate against the U.S. dollar by up to 0.5% above or below the central parity rate published by PBOC. The floating band was further widened to 1.0% on April 16, 2012. These changes in currency policy resulted in the Renminbi appreciating against the U.S. dollar by approximately 26.9% from July 21, 2005 to December 31, 2013. On March 14, 2014, PBOC further widened the floating band against the U.S. dollar to 2.0%.

On August 11, 2015, PBOC announced to improve the central parity quotations of Renminbi against the U.S. dollar by authorizing market-makers to provide central parity quotations to the China Foreign Exchange Trading Centre daily before the opening of the interbank foreign exchange market with reference to the interbank foreign exchange market closing rate of the previous day, the supply and demand for foreign exchange as well as changes in major international currency exchange rates. Following the announcement by PBOC on August 11, 2015, Renminbi depreciated significantly against the U.S. dollar.

In January and February 2016, Renminbi experienced further fluctuation in value against the U.S. dollar. The PRC government may adopt further reforms of its exchange rate system, including making the Renminbi freely convertible in the future. The following table sets forth the exchange rate of the Renminbi against the U.S. dollar. The exchange rate refers to the Noon Buying Rate as set forth in the weekly H.10 statistical release of the US Federal Reserve Board.

	Noon buying rate			
Period	**Period end**	**Average(1)**	**High**	**Low**
	(RMB per US$1.00)			
2014	6.2046	6.1704	6.2591	6.0402
2015	6.4778	6.2869	6.4896	6.1870
2016	6.9430	6.6549	6.9580	6.4480
2017	6.5063	6.7350	6.9575	6.4773
2018	6.8755	6.6090	6.9737	6.2649
2019	6.9618	6.9081	7.1786	6.6822
2020				
February	6.9906	6.9967	7.0286	6.9650
March	7.0808	7.0205	7.1099	6.9244
April	7.0622	7.0708	7.0989	7.0341
May	7.1348	7.1016	7.1681	7.0622
June	7.0651	7.0816	7.1263	7.0575
July	6.9744	7.0041	7.0703	6.9744
August (through August 28, 2020)	6.8647	6.9310	6.9799	6.8647

Note:

(1) Determined by averaging the rates on the last business day of each month during the relevant year, except for average rates for periods in 2020, which are determined by averaging the daily rates during the respective periods.

On August 28, 2020, the noon buying rate for U.S. dollars in New York City for cable transfers in Renminbi was US$1.00 = RMB6.9310 as certified for customs purposes by the Federal Reserve Bank of New York.

HONG KONG

The Hong Kong dollar is freely convertible into other currencies, including the U.S. dollar. Since October 17, 1983, the Hong Kong dollar has been linked to the U.S. dollar at the rate of HK$7.80 to US$1.00. The Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China (the "Basic Law"), which came into effect on July 1, 1997, provides that no foreign exchange control policies shall be applied in Hong Kong.

The market exchange rate of the Hong Kong dollar against the U.S. dollar continues to be determined by the forces of supply and demand in the foreign exchange market. However, against the background of the fixed rate system which applies to the issuance and withdrawal of Hong Kong currency in circulation, the market exchange rate has not deviated significantly from the level of HK$7.80 to US$1.00. In May 2005, the Hong Kong Monetary Authority broadened the 22-year-old trading band from the original rate of HK$7.80 per U.S. dollar to a rate range of HK$7.75 to HK$7.85 per U.S. dollar. The Hong Kong government has indicated its intention to maintain the link within that rate range. Under the Basic Law, the Hong Kong dollar will continue to circulate and remain freely convertible. However, no assurance can be given that the Hong Kong government will maintain the link at HK$7.80 to US$1.00 or at all.

The following table sets forth the noon buying rate for U.S. dollars in New York City for cable transfer in Hong Kong dollars as certified for customs purposes by the Federal Reserve Bank of New York for the periods indicated:

	Noon buying rate			
Period	**Period end**	**Average[(1)]**	**High**	**Low**
	(HK$ per US$1.00)			
2014	7.7531	7.7554	7.7669	7.7495
2015	7.7507	7.7519	7.7686	7.7495
2016	7.7534	7.7618	7.8270	7.7505
2017	7.8128	7.7949	7.8267	7.7540
2018	7.8305	7.8376	7.8499	7.8043
2019	7.7894	7.8335	7.8499	7.7850
2020				
February	7.7927	7.7757	7.7951	7.7630
March	7.7513	7.7651	7.7820	7.7511
April	7.7514	7.7512	7.7530	7.7498
May	7.7513	7.7519	7.7561	7.7500
June	7.7501	7.7501	7.7514	7.7498
July	7.7500	7.7509	7.7538	7.7499
August (through August 28, 2020)	7.7502	7.7502	7.7506	7.7498

Note:

(1) Determined by averaging the rates on the last business day of each month during the relevant year, except for average rates for periods in 2020, which are determined by averaging the daily rates during the respective periods.

On August 28, 2020, the noon buying rate for U.S. dollars in New York City for cable transfers in Hong Kong dollars was US$1.00 = HK$7.7502 as certified for customs purposes by the Federal Reserve Bank of New York.

CAPITALIZATION AND INDEBTEDNESS

The following table sets forth on an actual basis our cash and cash equivalents, short term and long term borrowings and capitalization as of June 30, 2020 and as adjusted to give effect to the issuance of the Notes in this offering after deducting the Joint Lead Managers' discounts and commissions and other estimated expenses payable by us in connection with this offering. Except as otherwise disclosed herein, there has been no material change in our capitalization since June 30, 2020.

	As of June 30, 2020			
	Actual		As Adjusted	
	RMB million	*US$ million*[(4)]	*RMB million*	*US$ million*[(4)]
Cash and cash equivalents[(1)]	7,938	1,124	12,102	1,713
Short-term borrowings[(2)]				
Bank and other loans	8,041	1,138	6,981[(5)]	988[(5)]
Senior Notes	2,579	365	2,579	365
Total short-term borrowings	10,620	1,503	9,560	1,353
Long-term borrowings[(2)]				
Bank and other loans	3,771	534	3,771	534
Corporate bonds	2,095	297	2,095	297
Unsecured bonds	4,234	599	4,234	599
Notes to be issued	—	—	5,224	739
Total long-term borrowings	10,100	1,430	15,324	2,169
Equity attributable to owners of our Company				
Share capital	116	16	116	16
Reserves	26,587	3,763	26,587	3,763
Total equity attributable to owners of our Company	26,703	3,779	26,703	3,779
Total capitalization[(3)]	36,803	5,209	42,027	5,948

Notes:

(1) Cash and cash equivalents exclude non-current restricted cash of RMB442 million (US$63 million) and current restricted cash of RMB430 million (US$61 million).

(2) Our borrowings do not include any capital commitments or contingent liabilities. As June 30, 2020, capital commitments were RMB1,948 million (US$276 million).

(3) Total capitalization includes total long-term borrowings plus total equity attributable to owners of the Company.

(4) Calculated at the exchange rate of US$1.00 = RMB7.0651 on June 30, 2020 as published by Federal Reserve Bank of New York.

(5) Reflects the estimated repayment of RMB1,060 million (US$150 million) of our existing bank and other loans.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with the Company's Audited Financial Statements and the Company's Unaudited Interim Financial Statements, including the notes thereto, included elsewhere in this Offering Memorandum. All financial information for the Company is set forth below on a consolidated basis.

Our consolidated financial statements were prepared in accordance with HKFRS, which differ in certain respects from generally accepted accounting principles in certain other jurisdictions. Unless otherwise specified, references in this section of the offering memorandum to "2017," "2018" and "2019" refer to our financial years ended December 31, 2017, 2018 and 2019, respectively.

Overview

We are one of the largest privately-owned gas operators and clean energy distributors in China. Our principal business is the sale and distribution of piped gas, LNG and other multi-energy products, and the investment in, and the constructions, operation and management of, gas pipeline infrastructure, vehicle/ship refueling stations and integrated energy projects. We also have energy trading and value added business segments, including the sales of gas-related appliances and the provision of repair, maintenance and energy management services that assist our customers in optimizing their energy usage.

We commenced operations in 1993 and have since developed into one of the leading privately-owned gas operators in the PRC. As of June 30, 2020, we had a total of 229 operational locations with a total connectable urban population of 107,573,000 in China. We operate our piped gas distribution infrastructure on an exclusive basis, typically for periods ranging from 25 to 30 years, in cities and urban areas located in 22 provinces, municipalities and autonomous regions in China.

We typically apply for and obtain exclusive rights from the local governments in China to distribute piped gas. We may also acquire exclusive rights by entering into joint ventures with existing local piped gas distributors. In addition, we construct and maintain city piped gas networks in locations in which we have acquired exclusive rights through the above-mentioned means to supply piped gas. We charge construction and installation fees from property developers, residential customers and C/I customers according to local government's regulations. We receive recurring gas usage charges from connected customers based on the tariffs negotiated and determined within the price cap set by the local governments.

We intend to grow organically by increasing the penetration rates and the number of connected customers for our existing operational locations while continuing to develop new projects and expanding our concessions in China (including, without limitation, to add more operational locations and to acquire certain industrial park projects close to the existing operational locations), with a particular focus on the commercial and industrial zones of emerging cities. In 2017, 2018, 2019 and the six months ended June 30, 2020, the number of city-gas projects under our management increased by 12, 15, 30 and 12 respectively, in China. As the projects in our operational locations continue to mature, we have become less reliant on one-time gas construction and installation fees, while sales of piped gas have increased as a proportion of our revenue, creating a more stable source of recurring revenue.

Apart from natural gas distribution business, we adhere to the customer-centric business strategy, to develop integrated energy and value added businesses which aim at satisfying our customers' all-rounded energy needs.

The operation of integrated energy business is mainly based on customers' demand, which requires in-depth understanding of customers' business conditions, characteristics of their energy loads, and manufacturing processes. We will evaluate the competitiveness of different kinds of clean energy sources available locally, such as biomass, industrial waste heat, photovoltaics, geothermal heat, seawater heat sources, etc., and compare different technical routes to tailor the best integrated energy solutions for customers, helping them achieve the optimal use of energy and reduce their overall energy bills. As of June 30, 2020, we had 108 integrated energy projects in operation, serving customers including airports, railway stations, industrial parks and municipal areas, coupled with the 23 projects under construction, the expected energy sales including steam, heating, cooling and electricity of these projects will reach 34 billion kWh upon full operation.

Leveraging on our customer base of 22 million residential households and 157 thousand C/I customers, we focus on satisfying customers' diversified needs to explore more business opportunities. We provide energy experts to our C/I customers and provide them with energy-saving technologies and retrofitting services, so as to maintain their market competitiveness by enhancing their gas consumption and production efficiency. We also offer C/I customers with facilities repairing and maintenance services, which can ensure their safety during gas consumption. In order to further strengthen customer relationship, we actively promote gas appliances and other value added services to residential customers, such as cookers, space heaters, safety alarms, automatic shut-off valves, installation services and other household solutions. We expect these new business segments will provide more recurring revenue streams and become the new profit growth drivers to the Group. For the year ended 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, our revenue was approximately RMB48,269 million, RMB60,698 million, RMB70,183 million, RMB35,344 million and RMB31,543 million, respectively, our total net assets were approximately RMB20,217 million, RMB25,554 million, RMB31,020 million, RMB28,011 million and RMB31,947 million, respectively, and our net profit was approximately RMB3,673 million, RMB3,818 million, RMB6,861 million, RMB3,945 million and RMB3,165 million, respectively.

Our shares were listed on the Growth Enterprise Market on May 10, 2001 and were transferred to the Main Board of the Hong Kong Stock Exchange (stock code: 2688) on June 3, 2002.

Our Critical Accounting Policies

Our critical accounting policies are those we believe are important to the portrayal of our financial condition and results of operations, or are policies that require us to exercise judgment in considering the relevant transaction. In many cases, the accounting treatment of a particular transaction is specifically dictated by HKFRS with no need for the application of our judgment. In certain circumstances, however, the preparation of consolidated financial statements in conformity with HKFRS requires that we use our judgment to make certain estimates, assumptions and decisions regarding accounting treatment. We believe that the policies described below are our critical accounting policies.

Adoption of HKFRS 9 and HKFRS 15

The Company's 2018 Audited Consolidated Financial Statements were prepared reflecting the adoption of HKFRS 9 and HKFRS 15, both of which took effect from January 1, 2018. Please refer to Note 3 of the 2018 Audited Consolidated Financial Statements for a discussion of the impact of the adoption of HKFRS 9 and HKFRS 15. As we have applied the transitional provisions set out in HKFRS 9 and the modified retrospective approach set out in HKFRS 15, each with a date of initial application of January 1, 2018 and without restating the corresponding figures for prior periods before January 1, 2018, our consolidated financial information as of and for the year ended December 31, 2017 may not be directly comparable to our consolidated financial information after January 1, 2018, including our consolidated financial information as of and for the years ended December 31, 2018 and 2019 and the six months ended June 30, 2019 and 2020. Investors must, therefore, exercise caution when making comparisons between any financial figures after January 1, 2018, including our consolidated financial statements as of and for the years ended December 31, 2018 and 2019 and the six months ended June 30, 2019 and 2020, and our consolidated financial information prior to January 1, 2018 and when evaluating the Group's financial condition and results of operations.

Adoption of HKFRS 16

The Company's 2019 Audited Consolidated Financial Statements were prepared reflecting the adoption of HKFRS 16, which took effect from January 1, 2019. Please refer to Note 3 of the 2019 Audited Consolidated Financial Statements for a discussion of the impact of the adoption of HKFRS 16. As we have applied the modified retrospective approach set out in HKFRS 16 with the date of initial application of January 1, 2019 and without restating the corresponding figures for prior periods before January 1, 2019, our consolidated financial information as of and for the years ended December 31, 2017 and 2018 may not be directly comparable to our consolidated financial information after January 1, 2019, including our consolidated financial information as of and for the year ended December 31, 2019 and the six months ended June 30, 2019 and 2020. Investors must, therefore, exercise caution when making comparisons between any financial figures after January 1, 2019, including our consolidated financial statements as of and for the year ended December 31, 2019 and the six months ended June 30, 2019 and 2020, and our consolidated financial information prior to January 1, 2019 and when evaluating the Group's financial condition and results of operations.

Adoption of Hedge Accounting

The Company's Interim Condensed Consolidated Financial Statements were prepared reflecting the adoption of hedge accounting in accordance with HKFRS 9. Please refer to Note 2 of the Interim Condensed Consolidated Financial Statements for a discussion of the adoption of hedge accounting. The Interim Condensed Consolidated Financial Statements were prepared in accordance with Hong Kong Accounting Standard 34 "Interim Financial Reporting". As the adoption of hedge accounting was prospective and we did not restate the corresponding figures for the prior periods before January 1, 2020, our interim condensed financial statements as of and for the six months ended June 30, 2019 may not be directly comparable to our interim condensed consolidated financial information after January 1, 2020, including our Interim Condensed Consolidated Financial Statements.

Recognition of intangible assets acquired in business acquisition

We account for acquisitions of businesses by using the acquisition method, and the consideration transferred for the business acquisition is allocated to the identifiable assets acquired and liabilities assumed based on their respective fair values as at acquisition date, including intangible assets. We usually determine the fair value of intangible assets using excess earning method, which requires a set of estimations and determination of key inputs, including the future cash flow, profit margins, revenue growth rates and discount rates. Any changes to these inputs may have a significant impact on the fair value of intangible assets, and will consequently have a further impact on goodwill or profit or loss in the case of a bargain purchase.

Estimated impairment of goodwill and intangible assets

Determining whether goodwill and intangible assets are impaired requires the estimation of the recoverable amount of the cash generating units ("**CGUs**") to which goodwill and intangible assets have been allocated, which is the higher of the fair value less costs of disposal and its value in use. The value in use calculation requires that we estimate the future cash flows expected to arise from the CGU and a suitable discount rate in order to calculate the present value. Where the actual future cash flows are less than expected, or there are changes in facts and circumstances which result in a downward revision of future cash, a material impairment loss may arise. As of December 31, 2017, 2018 and 2019 and June 30, 2019 and 2020, the carrying amount of goodwill was RMB192 million, RMB2,248 million, RMB2,379 million, RMB2,270 million and RMB2,427 million, respectively, and the carrying amount of intangible assets less accumulated amortization was RMB1,681 million, RMB3,037 million, RMB4,175 million, RMB3,301 million and RMB4,302 million, respectively. Details of the calculation of the recoverable amount are set out in Notes 19 and 20 to the 2018 Audited Consolidated Financial Statements and Notes 20 and 21 to the 2019 Audited Consolidated Financial Statements.

Fair value measurement of financial instruments

Certain of our financial instruments, including unlisted equity securities and derivative contracts amounting to RMB5,017 million, RMB4,549 million, RMB4,907 million, RMB4,805 million and RMB4,835 million as of December 31, 2017, 2018 and 2019 and June 30, 2019 and 2020, respectively, are measured at fair values with fair values being determined based on complex valuation techniques or unobserved inputs. Judgement and estimation are required in establishing the relevant valuation techniques and the relevant inputs such as liquidity discount, estimates of future prices, market price volatility and credit risk. Changes in assumptions relating to these factors could affect the reported fair values of these instruments. Further disclosures are set out in Note 54 to the 2018 Audited Consolidated Financial Statements and Note 53 to the 2019 Audited Consolidated Financial Statements.

Provision of ECL for trade receivables and contract assets

We use a provision matrix to calculate expected credit loss ("ECL") for our trade receivables and contract assets. The provision rates are based on shared credit risk characteristics as groupings of various debtors that have similar loss patterns. The provision matrix is based on the debtors' historical default rates taking into consideration forward-looking information that is reasonable and supportable available without undue costs or effort. At each reporting date, the historical observed default rates are reassessed and changes in the forward-looking information are considered. In addition, trade receivables and contract assets with significant balances and credit impairment are assessed for ECL individually. The provision of ECL is sensitive to changes in estimates. Information about ECL and our trade receivables and contract assets is disclosed in Notes 23, 28 and 54, respectively, to the 2018 Audited Consolidated Financial Statements and Notes 24, 28 and 53, respectively, to the 2019 Audited Consolidated Financial Statements.

Depreciation of property, plant and equipment

Property, plant and equipment are depreciated on a straight-line basis over their estimated useful lives, after taking into account the estimated residual value. We assess annually the residual value and the useful life of our property, plant and equipment and, if the expectation differs from the original estimates, such differences from the original estimates will impact the depreciation charges in the year in which the estimates change. As of December 31, 2017, 2018 and 2019 and June 30, 2019 and 2020, the carrying amount of property, plant and equipment less accumulated depreciation and accumulated impairment losses was RMB25,490 million, RMB31,073 million, RMB37,955 million, RMB33,958 million and RMB39,369 million.

Factors Affecting Our Performance

The operating performance of our business is affected by the following key factors:

Government policies encouraging the adoption of cleaner burning fuels

According to the PRC Government Energy Production and Consumption Revolution Strategy〈能源生產及消費革命戰略〉(2016-2030), the PRC government intends to enhance the supply of natural gas, the development of gas pipeline network and energy saving and emission reduction. According to BP Statistical Review of World Energy June 2020, the proportion of natural gas in China's total primary energy consumption was 7.8% in 2019, the PRC government targets to increase the proportion of natural gas in China's total primary energy consumption to 15% by 2030 according to the Energy Production and Consumption Revolution Strategy (2016-2030). The PRC government will implement additional regulations and programs encouraging the use of natural gas, the implementation of which is expected to be favourable for the development of the PRC natural gas industry. However, any delay in implementation of these regulations or programs could have a detrimental effect on the continued development of the PRC natural gas industry, which, in turn, could adversely affect our business.

The PRC government's 13th Five-year Plan highlighted several focuses of energy development, including, among other things: (i) the need to optimize the development of fossil fuels, control coal production capacity and to enhance the supply of natural gas; (ii) to enhance the development of the energy pipeline network; and (iii) to enhance energy saving and reduce emissions. Natural gas, a clean and efficient fossil fuel, is one of the major types of clean energy specifically promoted by the PRC government and has been explicitly prescribed as the main source of energy for urban gas utilization. As a result of the priority given by the PRC government and increased urbanization in China, China's natural gas consumption volume increased from 10.5 billion cubic feet per day ("bcf/d") in 2010 to 29.7 bcf/d in 2019, representing a compound annual growth rate ("CAGR") of 12.2%, according to BP Statistical Review of World Energy June 2020.

In order to promote the natural gas industry, the PRC government has made significant investment in developing natural gas infrastructure. The PRC government plans to complete and launch 7 natural gas transmission pipeline projects, including the Central Asia-China Pipeline D, Russia-China Eastern Pipeline, Russia-China Western Pipeline, Xinjiang-Guangdong-Zhejiang Pipeline. The establishment of China Oil & Gas Pipeline Network Corporation ("PipeChina") is also expected to further liberalize natural gas infrastructure and encourage higher volume of gas supply to China. These policies have benefited and will continue to benefit our results of operations by encouraging the demand for our natural gas products. As we focus on increasing gas penetration rates across all of our operational locations and boosting connections between all of our existing gas projects, we anticipate that our results of operations will continue to be affected by government policies encouraging the adoption of cleaner burning fuels.

Our operating results have also historically depended in part on the tax concessions and preferential tax treatment accorded by the PRC government to certain business enterprises and foreign invested enterprises in the PRC natural gas industry. However, as a result of the PRC government's strategy to develop a unified tax policy with respect to both domestic and foreign invested companies, in recent years, the effective income tax rates or many of our project companies have risen closer to the standard PRC corporate tax rate of 25%. See "*Taxation.*"

COVID-19 pandemic

The COVID-19 pandemic and other adverse public health developments and the more moderate economic growth in China may lower oil and gas demand and adversely affect us. As the natural gas industry is sensitive to macroeconomic trends and oil and gas prices tend to fall in recessionary periods, we may experience pricing pressure on our gas supply, which may adversely affect profitability. The COVID-19 pandemic and policies implemented by governments to deter the spread of the disease have had and may continue to have an adverse effect on consumer confidence and the general economic conditions our business is subject to. The disruptions to the supply chain and reduced levels of consumption, commercial activities and industrial production in the affected countries have precipitated an economic slowdown in those economies, including the decrease in demand of natural gas supply from our export-oriented clients, which has in turn adversely affected our results of operation and financial conditions. Our customers may also face financial difficulties due to the COVID-19 pandemic, which may lead to difficulties for us in collecting our accounts receivables and increase risks of incurring bad debt, which may adversely affect our financial conditions. In the first half year in 2020, we experienced an overall decrease in revenue compared to the first half year in 2019, due primarily to a decrease in the upstream natural gas procuring price, resulting in a decrease in the natural gas sales revenue as we conducted price pass-through to our customers. In addition, our revenue also decreased due to the reduced number of completed connections as COVID-19 has caused delays in the construction and installation progress for new customers, as well as a decrease in revenue from our value added business due to the reduced frequency of face-to-face communications with our existing and potential customers caused by COVID-19.

General economic conditions in China and other countries in which we operate

Substantially all of our projects are located in China. Thus, our results of operations and performance are substantially affected by and dependent on the overall economic growth in China. We believe that the general economic growth of China is directly correlated with the amount of natural gas consumed in China and thus greatly affects our results of operation and financial condition. Natural gas consumption in China has grown significantly in the last decade, mainly as a result of strong GDP growth in China. According to the National Bureau of Statistics of China, China's GDP has grown from RMB41.2 trillion in 2010 to RMB99.1 trillion in 2019, representing a compound annual growth rate, or CAGR, of 10.2% in nominal terms. As China's GDP is expected to continue to grow, this growth should further drive increase in energy demand in China.

Our ability to increase our natural gas sales volume and maintain and increase penetration rates in operational locations

As natural gas sales volume significantly affects our results of operations and financial condition, we are committed to promoting the use of natural gas in the areas that we operate. We also aim to expand into new markets where we have not yet established an operational presence. To increase our customer base, we aim to promote the benefits of natural gas, in terms of price, convenience, safety, cleanliness and environmental friendliness. Our promotional activities include broadcasting advertisements through media and distributing brochures and posters, and our campaigns (which may include joint promotional campaigns with the local government) to promote the benefits of natural gas and energy-saving equipment to reduce the overall costs of using natural gas, among other activities.

Our ability to maintain and increase our customer penetration rate in existing and new markets remains crucial to our financial performance and condition.

Purchase price of natural gas as a raw material

Natural gas constitutes the most important raw material for our business and the purchase price of natural gas significantly affects our results of operations and financial condition. For the three years ended December 31, 2017, 2018 and 2019, our purchases of natural gas amounted to RMB32,756 million, RMB45,122 million and RMB50,392 million (US$7,133 million), respectively, representing 82.0%, 88.1% and 85.5%, respectively, of our cost of sales.

We source natural gas with reference to the benchmark city-gate prices, and sell to end users at prices set by the local governments. The NDRC determines the benchmark city-gate price as well as the transportation cost for national long-distance transmission pipelines, but also permits natural gas purchasers and sellers to contractually agree on the specific city-gate price based on the benchmark city-gate price. On February 22, 2020, the NDRC published a notice outlining the periodical reduction of non-residential customers' gas cost and supporting enterprises in the resumption of work and production. Provincial price control bureaus determine the transportation costs for provincial gas pipelines, including provincial long-distance transmission pipelines, based on the distance from the gas wellhead. We currently purchase a majority of our natural gas from PetroChina, Sinopec and CNOOC, or their distributors, with reference to city-gate prices. The city-gate prices for our natural gas purchases are affected by factors which are outside of our control. As we expand our natural gas business into other locations, we expect our results of operations to continue to be affected by the regulation of natural gas prices in China. Since 2016, we also have commitments to acquire LNG from certain international natural gas suppliers. The delivery of LNG from such international suppliers is under a "take-or-pay" arrangement whereby we are obliged to make payment to suppliers for the quantity contracted but not delivered and the contracts last for 5 to 10 years. See also "*Business — Purchases — Gas.*"

Sale price of natural gas

During the three years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, natural gas retail sales accounted for 56.0%, 56.5%, 57.1%, 57.5% and 57.7% of our total revenue, respectively. Our revenue correlates directly with the price of natural gas we sell to our customers.

The following tables set forth for the periods indicated, the performance highlights as well as the contribution to our revenue, from our principal business activities:

	Year ended December 31						Six months ended June 30			
	2017		2018		2019		2019		2020	
	RMB million	*% of total*	*RMB million*	*% of total*	*RMB million*	*% of total*	*RMB million*	*% of total*	*RMB million*	*% of total*
Revenue*										
Retail gas sales business	27,050	56.0%	34,272	56.5%	40,049	57.1%	20,332	57.5%	18,191	57.7%
Sales of integrated energy and services	294	0.7%	1,005	1.6%	2,749	3.9%	1,019	2.9%	2,101	6.6%
Wholesale of gas	11,878	24.6%	18,107	29.8%	18,465	26.3%	9,330	26.4%	7,919	25.1%
Value added business	3,093	6.4%	1,432	2.4%	1,988	2.8%	1,037	2.9%	663	2.1%
Construction and installation	5,954	12.3%	5,882	9.7%	6,932	9.9%	3,626	10.3%	2,669	8.5%
	48,269	100.0%	60,698	100.0%	70,183	100.0%	35,344	100.0%	31,543	100.0%

* *The grouping and presentation of revenue is consistent with the revenue as set out in 2019 Audited Consolidated Financial Statements.*

We are required to obtain approval from the relevant local pricing authorities for the retail price of the piped natural gas sold in a particular region, as well as any adjustment to the retail price. As retail prices are set by local pricing bureaus, rather than the PRC central government, they can vary significantly between cities. Specifically, in cities with established price linkage mechanisms, retail prices to downstream residential users of natural gas will be adjusted in line with adjustments in prices for upstream purchases of natural gas supply. In cities without established price linkage mechanisms, any adjustments in retail prices to residential users will be determined following hearings held by the local pricing bureaus. Indicative prices for C&I customers, and CNG vehicle refueling station customers are set by the local governments. We will confirm the final price with customers based on the indicative price set by the local government. As a result of these factors, the average selling prices at each of our operational locations could vary significantly depending on the locality.

Moreover, there is typically a time lag for us to pass through any increase in our city-gate prices to residential users because any adjustment in end user prices is subject to approval by the local pricing bureau through a public hearing. The time lag to pass on any increase in our city-gate prices to our C&I customers is often shorter than that for residential users because our C&I customer prices are often based on contract terms. These contract terms are typically based on an indicative price set by local governments that is adjustable within a negotiated range so it can be renegotiated faster after any increase in wellhead prices.

We maintain our relationships with the NDRC and local authorities to ensure they receive adequate feedback with respect to the sales prices of natural gas. Our ability to maintain or increase the sale price of natural gas remains a crucial factor in our revenue and margins.

Our ability to maintain our supply of natural gas

Our ability to maintain an adequate supply of natural gas significantly affects our results of operations and financial performance. Specifically, our business and profitability is contingent on our ability to continue to purchase natural gas from these suppliers on similar or acceptable terms, and on the timely delivery of, and quality of natural gas supplied by our suppliers via pipelines. We have entered into agreements to purchase natural gas from three major gas suppliers in China, namely PetroChina, Sinopec and CNOOC. The quantity of natural gas to be supplied to us by our suppliers is usually stated in our gas purchase agreements. Our ability to maintain our supply of natural gas remains critical to satisfy the needs of our customers and maintain our financial performance. We set out below the total volume of natural gas we purchased from major suppliers of the periods indicated:

	Year ended December 31			Six months ended June 30	
	2017	2018	2019	2019	2020
	In millions of m^3				
Major suppliers of natural gas					
PetroChina	8,396.1	7,816.5	10,958.2	5,959.1	5,894.5
Sinopec	1,592.4	2,952.9	1,992.4	1,074.6	1,117.9
CNOOC	2,460.9	2,952.9	1,593.9	1,465.4	711.4
Others	2,025.6	3,647.7	5,379.5	1,270.0	2,439.1
Total volume	14,475.0	17,370.0	19,924.0	9,769.1	10,162.9

In addition, we are also able to access LNG receiving terminals in Zhoushan pursuant to arrangements with our controlling shareholder, which in turn allows us to have access to a variety of gas suppliers in the market. The three long-term LNG import contracts with international suppliers allow us to diversify our gas sources more effectively.

The availability and cost of adequate financing for our capital expenditures

It is essential that we have enough financing alternatives or cash flow to support our business expansion in the future. Our capital expenditures are generally comprised of the construction of citygas pipeline networks, investment in the facilities of integrated energy projects and new citygas project acquisitions. Therefore, periodically we require large amounts of capital expenditures to finance these projects. During the year ended December 31, 2019, we spent approximately RMB8.92 billion on capital expenditures, primarily consisting of expansion relating to new citygas projects acquisition, investment in integrated energy projects and the acquisition of property, plant and equipment.

Our strategy is to finance our business and other capital expenditures primarily through business operations, financing, investment income and equity. As of December 31, 2019, our total debt amounted to RMB19,145 million. The balance of our borrowings and the total amount raised through other financing methods, as well as any interest rate fluctuations and other borrowing costs, will materially affect our finance costs, results of operations and financial condition.

Certain Income Statement Items

Revenue

We derive our revenue from selling natural gas to customers through pipelines, including both residential households and commercial and industrial customers, operating vehicle gas refueling stations to refuel vehicles with LNG and CNG, supplying various energy products, such as gas, electricity, cooling, heating and steam, providing construction and installation services, supplying LNG to wholesale customers, selling gas appliances such as cooking stoves, water boilers, range hoods and space heaters to residential customers, selling gas appliances and providing energy technology services to commercial and industrial customers. The following table sets forth the breakdown of our revenue and as a percentage of total revenue for the periods indicated:

	Year ended December 31						Six months ended June 30			
	2017		2018		2019		2019		2020	
	RMB million	*% of total*	*RMB million*	*% of total*	*RMB million*	*% of total*	*RMB million*	*% of total*	*RMB million*	*% of total*
Revenue										
Retail gas sales business . . .	27,050	56.0%	34,272	56.5%	40,049	57.1%	20,332	57.5%	18,191	57.7%
Sales of integrated energy and services	294	0.7%	1,005	1.6%	2,749	3.9%	1,019	2.9%	2,101	6.6%
Wholesale of gas	11,878	24.6%	18,107	29.8%	18,465	26.3%	9,330	26.4%	7,919	25.1%
Value added business.	3,093	6.4%	1,432	2.4%	1,988	2.8%	1,037	2.9%	663	2.1%
Construction and installation.	5,954	12.3%	5,882	9.7%	6,932	9.9%	3,626	10.3%	2,669	8.5%
	48,269	100.0%	60,698	100.0%	70,183	100.0%	35,344	100.0%	31,543	100.0%

Cost of Sales

Our cost of sales consists primarily of the cost of supplying gas, and, to a lesser extent, of the cost of selling gas appliances and depreciation. The cost of supplying gas includes purchase of pipeline gas and pipeline gas operating costs.

We generally enter into take-or-pay contracts, other long-term supply contracts or guaranteed gas supply contracts with the major upstream pipeline gas suppliers in China, purchasing LNG at the prevailing market price. For further details about our gas supply arrangements, see "Business — Purchases — Gas." See also "Risk Factors - We are dependent on a limited number of suppliers of natural gas, which may affect our ability to supply natural gas to our customers."

Other Income

Other income primarily comprises incentive subsidies, dividend income from financial assets, interest income on bank deposits and interest income on loan receivables. Incentive subsidies mainly represent refunds of various taxes as incentives and other incentives relating to our operation by governmental authorities in various cities of the PRC. Other income also comprises items such as dividend income from equity investments, rental income from investment properties, rental income from equipment and sale of proprietary technology.

Other Gains and Losses

Other gains and losses primarily consist of net gain or loss on financial assets/liabilities, loss on foreign exchange (including exchange loss arising from the translation of senior notes, unsecured bonds and bank loans denominated in U.S. dollars or Hong Kong dollars to RMB), net gain or loss on convertible bonds, gain on remeasurement of interests in joint ventures previously held, net loss or gain on disposal of assets, including of property, plant and equipment and of right-of-use assets/prepaid lease payments and certain impairment losses.

Distribution and Selling Expenses

Distribution and selling expenses principally cover salaries and benefits for our sales and marketing staff, marketing and advertising expenses as well as other business promotional expenses and maintenance costs.

Administrative Expenses

Administrative expenses mainly consist of salary, employee benefits and welfare expenses for our administrative staff, utilities expenses and certain office expenses, depreciation and amortization, travelling expenses, business entertainment expenses and other miscellaneous expenses.

Finance Costs

Finance costs primarily consist of interest on our bank or other loans, senior notes, corporate bonds, unsecured bonds and lease liabilities, adjusted for amounts capitalized under construction in progress and fair value loss reclassified from equity on foreign currency derivative designated as cash flow hedges for USD debts.

Income tax expense

Under the current laws of the Cayman Islands, we are not subject to any income or capital gains tax. Additionally, dividend payments made by us are not subject to any withholding tax in the Cayman Islands.

Accordingly, taxation primarily represents the tax payable by our subsidiaries in China and represents the sum of the tax currently payable and deferred tax.

Under the Enterprise Income Tax Law of the PRC (中華人民共和國企業所得稅法) and the Regulations for Implementation of Enterprise Income Tax Law of the PRC (中華人民共和國企業所得稅法實施條例) (together, the "Tax Law"), the enterprise income tax rate applicable to our PRC subsidiaries is 25%, subject to exceptions for certain of our PRC subsidiaries that are entitled to various concessionary rates, as discussed below.

Certain subsidiaries of the Company are qualified as "High and New Tech Enterprises," which are subject to a preferential enterprise income tax rate of 15% of the estimated assessable profit as determined in accordance with relevant tax rules and regulations in the PRC. This preferential rate can be applied for three years, and subsidiaries are eligible to apply the tax concession again upon the expiry of the three-year period.

In accordance with the relevant tax laws, rules and regulations in China, Sino-foreign joint ventures and wholly owned foreign enterprises are liable to pay income tax on net profits. Accordingly, our Sino-foreign joint ventures and wholly owned foreign enterprises are subject to an income tax rate of 25% unless a preferential rate applies according to relevant tax laws, rules and regulations in PRC. Furthermore, depending on the nature of the enterprise's business and subject to obtaining approval from the relevant tax authority, they may qualify for tax concessions. Certain of our project companies, such as, Zhejiang Xinao Intelligent Equipment Trading Company Limited, Xinao Hengxin Energy Development Company Limited and Xuancheng Xinao Gas Company Limited qualify for this tax concession. In addition to income tax, value added tax, or VAT, is payable on gas usage charges and sales of gas appliances in China. The net VAT payable is calculated as 9% of revenue from sales of piped natural gas and 13% of revenue from sales of gas appliances after deducting input credit VAT, which is VAT paid on cost of goods sold.

Hong Kong profit tax is calculated at 16.5% of the estimated assessable profit.

Our Results of Operations

The following table sets forth, for the periods indicated, certain items derived from our consolidated statements of comprehensive income:

	Year ended December 31				Six months ended June 30		
	2017	2018	2019		2019	2020	2020
	RMB million	*RMB million*	*RMB million*	*US$ million*	*RMB million*	*RMB million*	*US$ million*
Revenue	48,269	60,698	70,183	9,934	35,344	31,543	4,465
Retail gas sales business	27,050	34,272	40,049	5,669	20,332	18,191	2,575
Sales of integrated energy and services	294	1,005	2,749	389	1,019	2,101	297
Wholesale of gas	11,878	18,107	18,465	2,614	9,330	7,919	1,121
Value added business	3,093	1,432	1,988	281	1,037	663	94
Construction and installation	5,954	5,882	6,932	981	3,626	2,669	378
Cost of sales	(39,930)	(51,188)	(58,918)	(8,339)	(29,746)	(25,941)	(3,672)
Gross profit	8,339	9,510	11,265	1,595	5,598	5,602	793
Other income	676	949	861	122	373	421	60
Other gains and losses	(895)	(1,634)	644	91	793	(234)	(33)
Distribution and selling expenses	(635)	(790)	(976)	(138)	(421)	(435)	(62)
Administrative expenses	(2,377)	(2,673)	(3,099)	(439)	(1,397)	(1,392)	(198)
Share of results of associates	129	275	326	46	190	166	24
Share of results of joint ventures	505	601	547	77	242	266	38
Finance costs	(552)	(637)	(727)	(103)	(375)	(320)	(45)
Profit before tax	5,190	5,601	8,841	1,251	5,003	4,074	577
Income tax expense	(1,517)	(1,783)	(1,980)	(280)	(1,058)	(909)	(129)
Profit for the year/period	3,673	3,818	6,861	971	3,945	3,165	448
Other comprehensive income:							
Gain on revaluation of properties arising from the transfer to investment properties	4	6	3	0	—	—	—
Fair value gain/(loss) on equity instruments at fair value through other comprehensive income	—	(7)	(1)	(0)	—	63	9
Exchange differences arising on translating foreign operations	(88)	—	—	—	—	(1)	(0)
Fair value loss on available-for-sale financial assets	(46)	—	—	—	—	—	—
Release of exchange reserve to profit or loss upon disposal / deregistration of subsidiaries	—	(40)	3	0	3	—	—
Hedging instruments for cash flow hedges	—	—	—	—	—	(230)	(33)
Other comprehensive (expense) income for the year/period	(130)	(41)	5	1	3	(168)	(24)
Total comprehensive income for the year/period	3,543	3,777	6,866	972	3,948	2,997	424

Six Months Ended June 30, 2020 Compared to Six Months Ended June 30, 2019

Revenue

Revenue decreased by RMB3,801 million, or 10.8%, to RMB31,543 million (US$4,465 million) in the first half of 2020 from RMB35,344 million in the first half of 2019. This decrease was due to a number of reasons related to decreases in revenue from our retail gas sales business, wholesale of gas, value added business and service fees from construction and installation, as further described below.

Retail gas sales business

Revenue from our retail gas sales business decreased by RMB2,141 million, or 10.5%, to RMB18,191 million (US$2,575 million) in the first half of 2020 from RMB20,332 million in the first half of 2019, primarily due to a decline in the upstream natural gas prices during the period as we conducted price pass-through to end users. Total volumes of retail gas sales increased by 394 million m^3, or 4.0%, to 10,163 million m^3 in the first half of 2020 from 9,769 million m^3 in the first half of 2019. Revenue from retail gas sales business represented 57.7% of our total revenue in the first half of 2020 as compared to 57.5% of our total revenue in the first half of 2019. We were able to increase our retail gas sales volume because of an increase in both C/I and residential customer base.

Integrated energy business

Revenue from our integrated energy business increased significantly by RMB1,082 million, to RMB2,101 million (US$297 million) in the first half of 2020 from RMB1,019 million in the first half of 2019. This was principally as a result of an increase in customer demand for integrated projects and services given the advantages such projects bring in terms of improved energy efficiency and reduction in overall energy costs. Revenue from sales of integrated energy accounted for 6.6% of our total revenue in the first half of 2020 as compared to 2.9% of our total revenue in the first half of 2019.

Wholesale of gas

Revenue from wholesale of gas decreased by RMB1,411 million, or 15.1%, to RMB7,919 million (US$1,121 million) in the first half of 2020 from RMB9,330 million in the first half of 2019. The decline was due to lower LNG market prices in the first half of 2020. However, we leveraged on our well-established upstream resources network, our smart despatching system, and our large-capacity LNG transportation fleets to increase our distribution of LNG wholesales customers such as small-scale gas distributors. Total sales volume of wholesale of gas increased by 6.8%, to 3,669 million m^3 in the first half of 2020. Revenue from wholesale of gas accounted for 25.1% of our total revenue in the first half of 2020 as compared to 26.4% of our total revenue in the first half of 2019.

Value added business

Revenue from our value added business decreased by RMB374 million, or 36.1%, to RMB663 million (US$94 million) in the first half of 2020 from RMB1,037 million in the first half of 2019. The decrease in revenue from our value added business was primarily due to the COVID-19 pandemic, which has curtailed the frequency of our face-to-face communications with existing and potential customers. Revenue from our value added business accounted for 2.1% of our total revenue in the first half of 2020 as compared to 2.9% of our total revenue in the first half of 2019.

Construction and installation

Our service fees from construction and installation decreased by RMB957 million, or 26.4%, to RMB2,669 million (US$378 million) in the first half of 2020 from RMB3,626 million in the first half of 2019. The decrease was due to the COVID-19 pandemic, which has caused delays in the construction and installation progress for new customers. Natural gas connections for new residential households decreased by 20.3% from 1,286,538 connections in the first half of 2019 to 1,025,021 connections in the first half of 2020; while natural gas connections for new C&I customers decreased by 31.2% from 12,110 connections in the first half of 2019 to 8,326 connections in the first half of 2020. 80.0% of the gas connection fees in the first half of 2020 were derived from residential households compared to 81.6% of the gas connection fees in the first half of 2019, with the remainder of the fees derived from C&I customers. At the end of the first half of 2020, we had achieved a piped gas penetration rate for residential households of 61.2%, up from 59.4% at the end of the first half of 2019. Construction and installation fees accounted for 8.5% of our total revenue in the first half of 2020 as compared to 10.3% of our total revenue in the first half of 2019. Our profit margin from construction and installation fees increased to 54.4% in the first half of 2020 from 53.0% in the first half of 2019.

Cost of sales

Cost of sales decreased by RMB3,805 million, or 12,8%, to RMB25,941 million (US$3,672 million) in the first half of 2020 from RMB29,746 million in the first half of 2019, primarily due to reduced natural gas procurement cost.

Gross profit

As a result of the foregoing factors, our gross profit increased by RMB4 million, to RMB5,602 million (US$793 million) in the first half of 2020 from RMB5,598 million in the first half of 2019.

Our gross profit margin increased to 17.8% in the first half of 2020 from 15.8% in the first half of 2019. The increase was primarily due to the improvement in the gross profit margins of our retail gas sales business and wholesale of gas, which increased to 16.7% in the first half of 2020 from 13.6% in the first half of 2019 and 1.7% in the first half of 2020 from 0.4% in the first half of 2019, respectively.

Other income

Other income increased 12.9% to RMB421 million (US$60 million) in the first half of 2020 from RMB373 million in the first half of 2019. The increase was primarily the result of a greater incentive subsidies received by us in the first half of 2020, mainly in the form of refunds of various taxes as incentives and other incentives related to our operations by government authorities in various cities in the PRC.

Other gains and losses

In the first half of 2020, there was a loss of RMB234 million (US$33 million) compared to a gain of RMB793 million in the first half of 2019. With the adoption of hedge accounting since the beginning of 2020, oil prices and other valuation factors during the period, the gains on profit and loss statement arising from the commodity derivative contracts amounted to RMB81 million, down RMB705 million (US$100 million) year-on-year. In addition, an exchange loss in the first half of 2020 of approximately RMB138 million was primarily arising from the translation of senior notes, unsecured bonds and bank loans denominated in U.S. dollars and Hong Kong dollars to RMB due to exchange rate fluctuations.

Distribution and selling expenses

Selling expenses increased 3.3% to RMB435 million (US$62 million) in the first half of 2020 from RMB421 million in the first half of 2019, primarily due to the expansion of our business operation and selling activities. As a percentage of revenue, selling expenses were approximately 1.4% in the first half of 2020, up slightly from approximately 1.2% in the first half of 2019.

Administrative expenses

Administrative expenses decreased 0.4% to RMB1,392 million (US$198 million) in the first half of 2020 from RMB1,397 million in the first half of 2019. The slight decrease was primarily due to the impact of COVID-19 on our operation which has caused decrease in certain of our administrative expenses, while it was partially offset by the increase in staff cost as we continue to expand our business operation. As a percentage of revenue, administrative expenses increased slightly to approximately 4.4% in the first half of 2020 compared to approximately 4.0% in the first half of 2019.

Share of results of associates

Our share of results of associates decreased 12.6% to RMB166 million (US$24 million) in the first half of 2020 from RMB190 million in the first half of 2019 primarily attributable to impact of COVID-19 on some of our associates.

Share of results of joint ventures

In the first half of 2020, our share of results of joint ventures increased 9.9% to RMB266 million (US$38 million) in the first half of 2020 from RMB242 million in the first half of 2019. The increase was primarily attributable to sales growth of some joint ventures.

Finance costs

Finance costs decreased 14.7% to RMB320 million (US$45 million) in the first half of 2020 from RMB375 million in the first half of 2019, due primarily to an overall decrease in average interest rates on our bank borrowings. These effects were partially offset by fair value loss from equity on designated foreign currency derivatives reclassified as cash flow hedges for USD debts of RMB18 million as a result of our adoption of hedge accounting since January 1, 2020.

Profit before tax

As a result of the cumulative effect of the foregoing, profit before income tax decreased 18.6% to RMB4,074 million (US$577 million) in the first half of 2020 from RMB5,003 million in the first half of 2019. Our net profit margin decreased to 10.0% in the first half of 2020 from 11.2% in the first half of 2019 due to, among other things, a significant fair value change in commodity derivative contracts. With the adoption of hedge accounting since January 1, 2020, the fluctuation in crude oil prices and other valuation factors in the first half of 2020, the gains on profit and loss statement arising from the commodity derivative contracts amounted to RMB81 million, down RMB705 million (US$100 million) year-on-year.

Income tax expense

Income tax expense decreased 14.1% to RMB909 million (US$129 million) in the first half of 2020 from RMB1,058 million in the first half of 2019 mainly due to the decrease in profit before tax. See "*Certain Income Statement Items — Taxation.*" Our effective tax rate increased from 21.1% in the first half of 2019 to 22.3% in the first half of 2020.

Profit for the period

As a result of the foregoing factors, our profit for the period in 2019 decreased by 19.8% to RMB3,165 million (US$448 million) in the first half of 2020 from RMB3,945 million in the first half of 2019.

Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

Revenue

Revenue increased by RMB9,485 million, or 15.6%, to RMB70,183 million (US$9,934 million) in 2019 from RMB60,698 million in 2018. This increase was due to increases in every component of our revenue, as further described below.

Retail gas sales business

Revenue from our retail gas sales business increased by RMB5,777 million, or 16.9%, to RMB40,049 million (US$5,669 million) in 2019 from RMB34,272 million in 2018, primarily due to an increase in the volume of retail gas sales. Total volumes of retail gas sales increased by 2,554 million m^3, or 14.7%, to 19,924 million m^3 in 2019 from 17,370 million m^3 in 2018. Revenue from retail gas sales business represented 57.1% of our total revenue in 2019 as compared to 56.5% of our total revenue in 2018. We believe we were able to increase our retail gas sales through the pursuit of our customer-oriented philosophy, and our ability to maintain existing customer base while exploring and developing new customers with potential demand. In addition, we also continued to deepen "rural coal-to-gas" conversion in areas with higher affordability as part of our efforts to assist the local governments in achieving the replacement of scattered coals for the prevention and control of air pollution.

Integrated energy business

Revenue from our integrated energy business increased significantly by RMB1,744 million, or 173.5%, to RMB2,749 million (US$389 million) in 2019 from RMB1,005 million in 2018. This was principally as a result of our ability to seize opportunities arising from tightened governmental policies on air pollution prevention and control, relocation of industrial facilities to industrial parks, adjustment of heating supply structure in industrial parks and the incremental power distribution reform. These effects are also attributable to our continued efforts in promoting systemic optimisation and upgrade of both our existing projects and projects under construction, in order to enhance both the quality and quantity of our integrated energy projects. Revenue from sales of integrated energy accounted for 3.9% of our total revenue in 2019 as compared to 1.6% of our total revenue in 2018.

Wholesale of gas

Revenue from wholesale of gas increased by RMB358 million, or 2.0%, to RMB18,465 million (US$2,614 million) in 2019 from RMB18,107 million in 2018. During 2019, we leveraged on our well-established upstream resources network, our smart despatching system, and our large-capacity LNG transportation fleets to increase our distribution of LNG to customers such as small-scale gas distributors. Total sales volume of wholesale of gas increased by 18.1%, to 7,039 million m^3 in 2019. These effects were partially offset by warmer weather last year, which resulted in lower peak energy demand, coupled with increasing competition pressure on downstream LNG market price. Revenue from wholesale of gas accounted for 26.3% of our total revenue in 2019 as compared to 29.8% of our total revenue in 2018.

Value added business

Revenue from our value added business increased by RMB556 million, or 38.8%, to RMB1,988 million (US$281 million) in 2019 from RMB1,432 million in 2018. The increase in revenue from our value added business was primarily due to our "customer-centricity" business philosophy to improve customers' energy consumption and production efficiency, enabling users who could not afford natural gas to gain access to the energy, thereby driving growth of customers' energy needs. We also took advantage of our brand influence and an online-offline service platform to connect with end customers, promote our gas appliances and launch a variety of smart products.

Construction and installation

Our service fees from construction and installation increased by RMB1,050 million, or 17.9%, to RMB6,932 million (US$981 million) in 2019 from RMB5,882 million in 2018. The increase was due to the increase in the number of completed connections for new customers. Natural gas connections for new residential households increased by 4.2% from 2,301,590 connections in 2018 to 2,397,202 connections in 2019; while natural gas connections for new C&I customers decreased by 5.4% from 29,226 site connections in 2018 to 27,656 site connections in 2019. 78.9% of the gas connection fees in 2019 were derived from residential households compared to 77.9% of the gas connection fees in 2018, with the remainder of the fees derived from C&I customers. At the end of 2019, we had achieved a piped gas penetration rate for residential households of 60.4%, up from 58.8% at the end of 2018. Construction and installation fees accounted for 9.9% of our total revenue in 2019 as compared to 9.7% of our total revenue in 2018. Our profit margin from construction and installation fees decreased to 53.6% in 2019 from 58.8% in 2018. This is primarily due to the greater proportion of connections completed in rural areas where the profit margin is lower.

Cost of sales

Cost of sales increased by RMB7,730 million, or 15.1%, to RMB58,918 million (US$8,339 million) in 2019 from RMB51,188 million in 2018, primarily due to increased gas sales, leading to a corresponding increase in costs associated with the purchase of gas.

Gross profit

As a result of the foregoing factors, our gross profit increased by RMB1,755 million, or 18.5%, to RMB11,265 million (US$1,595 million) in 2019 from RMB9,510 million in 2018.

Our gross profit margin increased to 16.1% in 2019 from 15.7% in 2018. The increase was primarily due to the increase in the proportion of our revenue represented by sales of integrated energy and services, from 1.6% in 2018 to 3.9% in 2019, and the increase in the proportion of our revenue represented by the provision of services and value added business, which feature a higher profit margin. In addition, the decrease in the proportion of our revenue represented by wholesale of gas, a lower margin business, from 29.8% in 2018 to 26.3% in 2019, partially offset the increase in construction and installation, from 9.7% of our revenue in 2018 to 9.9% in 2019.

Other income

Other income decreased 9.3% to RMB861 million (US$122 million) in 2019 from RMB949 million in 2018. The decrease was primarily the result of a decrease in dividend income from financial assets of RMB213 million, or 60.5%, from RMB352 million in 2018 to RMB139 million in 2019, primarily reflecting lower dividends received from one of the financial assets. This effect was partially offset by greater incentive subsidies received in 2019, mainly in the form of refunds of various taxes as incentives and other incentives related to our operations by government authorities in various cities in the PRC, and an increase in interest income from our bank deposits.

Other gains and losses

In 2019, there was a gain of RMB644 million (US$91 million) compared to a loss of RMB1,634 million in 2018. The gain in 2019 was primarily the result of the rebound in crude oil prices, which led to a net gain of RMB920 million on financial assets/liabilities, primarily arising from our commodity derivative contracts. This effect was partially offset by an exchange loss in 2019 of approximately RMB192 million arising from the translation of senior notes, unsecured bonds and bank loans denominated in U.S. dollars and Hong Kong dollars to RMB due to exchange rate fluctuations.

In 2018, the loss was primarily driven by an RMB797 million net loss on financial assets/liabilities as a result of fluctuating international crude oil price. We also experienced a much greater exchange loss of RMB707 million in 2018 arising from the translation of senior notes, unsecured bonds and bank loans denominated in U.S. dollars and Hong Kong dollars to RMB due to exchange rate fluctuations.

Distribution and selling expenses

Distribution and selling expenses increased 23.5% to RMB976 million (US$138 million) in 2019 from RMB790 million in 2018, primarily due to the increase in staff costs incurred in connection with an increase in our group size and business growth, as more new project companies were formed and our distribution and selling expenses increased in line with our increases in revenue. As a percentage of revenue, distribution and selling expenses were approximately 1.4% in 2019, up slightly from approximately 1.3% in 2018.

Administrative expenses

Administrative expenses increased 15.9% to RMB3,099 million (US$439 million) in 2019 from RMB2,673 million in 2018, primarily as a result of the increase in staff costs and research and development costs incurred in connection with an increase in our group size and business growth, as more new project companies were formed and our administrative expenses increased in line with our increases in revenue. As a percentage of revenue, administrative expenses remained relatively stable at approximately 4.4% in both 2019 and 2018.

Share of results of associates

Our share of results of associates increased 18.5% to RMB326 million in 2019 (US$46 million) from RMB275 million in 2018 primarily due to the growth in the business size of our existing associates due to increases in gas sales and also to the reclassification between associates and joint ventures.

Share of results of joint ventures

In 2019, our share of results of joint ventures decreased 9.0% to RMB547 million (US$77 million) from RMB601 million in 2018. The decrease was primarily attributable to the reclassification between associates and joint ventures. These effects were partially offset by the growth in the business size of our joint ventures due to increases in revenue.

Finance costs

Finance costs increased 14.1% to RMB727 million (US$103 million) in 2019 from RMB637 million in 2018, due primarily to higher interest expense on bank and other loans, reflecting an increase in our average bank borrowings. In addition, the application of HKFRS 16 resulted in the recognition of interest on lease liabilities. Partially offsetting these effects was a decrease in interest on corporate bonds by RMB45 million (US$6 million).

Profit before tax

As a result of the cumulative effect of the foregoing, profit before income tax increased 57.8% to RMB8,841 million (US$1,251 million) in 2019 from RMB5,601 million in 2018. Our net profit margin increased to 9.8% in 2019 from 6.3% in 2018 due to, among other things, other gains realized in 2019 as the result of the rebound in crude oil prices, as compared to other losses in 2018 owing largely to drop in crude oil prices and foreign currency translation effects.

Income tax expense

Income tax expense increased 11.0% to RMB1,980 million (US$280 million) in 2019 from RMB1,783 million in 2018 mainly due to the increase in profit before tax. See "*Certain Income Statement Items — Taxation.*" Our effective tax rate decreased from 31.8% in 2018 to 22.4% in 2019.

Profit for the year

As a result of the foregoing factors, our profit for the year in 2019 increased by 79.7% to RMB6,861 million from RMB3,818 million in 2018.

Year Ended December 31, 2018 Compared to Year Ended December 31, 2017

Revenue

Revenue increased by RMB12,429 million, or 25.7%, to RMB60,698 million in 2018 from RMB48,269 million in 2017. This increase was primarily due to an increase in the volume of retail gas sales .

Retail gas sales business

Revenue from our retail gas sales business increased by RMB7,222 million, or 26.7%, to RMB34,272 million in 2018 from RMB27,050 million in 2017, primarily due to an increase in the volume of retail gas sales. Total volumes of retail gas sales increased by 2,895 million m^3, or 20%, to 17,370 million m^3 in 2018 from 14,475 million m^3 in 2017. Revenue from retail gas sales business represented 56.5% of our total revenue in 2018 as compared to 56.0% of our total revenue in 2017. We were able to increase our retail gas sales mainly because of our ability to benefit from the accelerated promotion of "coal-to-gas" conversion and the implementation of various favourable industry policies in 2018, together with a strong demand for natural gas from new and existing customers.

Integrated energy business

Revenue from our integrated energy business increased significantly by RMB711 million, or 241.8%, to RMB1,005 million in 2018 from RMB294 million in 2017. This was principally as a result of our acquisition of Ubiquitous Energy Network Technology Co., Ltd and securing of leading core technologies in respect of integrated energy planning, designing, operation and maintenance, which substantially strengthened our competitive advantages in the integrated energy industry. Revenue from sales of integrated energy accounted for 1.6% of our total revenue in 2018 as compared to 0.7% of our total revenue in 2017.

Wholesale of gas

Revenue from wholesale of gas increased by RMB6,229 million, or 52.4%, to RMB18,107 million in 2018 from RMB11,878 million in 2017. This was principally as a result of leveraging on our well-established upstream resources network and smart dispatching system. Our gas supply became more abundant and diversified following the progressive execution of the three long-term LNG import contracts signed with three international suppliers commencing from the second half of 2018. Revenue from wholesale of gas accounted for 29.8% of our total revenue in 2018 as compared to 24.6% of our total revenue in 2017.

Value added business

Revenue from our value added business decreased by RMB1,661 million, or 53.7%, to RMB1,432 million in 2018 from RMB3,093 million in 2017. The decrease in revenue from our value added business was primarily due to the adoption of HKFRS 15 leading to a smaller revenue and cost recognised under net basis. Revenue from value added business accounted for 2.4% of our total revenue in 2018 as compared to 6.4% of our total revenue in 2017.

Construction and installation

Our service fees from construction and installation decreased by RMB72 million, or 1.2%, to RMB5,882 million in 2018 from RMB5,954 million in 2017. The decrease was due to a greater proportion of connections completed in regions with lower construction and installation fees. Natural gas connections for new residential households increased to 2.3 million connections in 2018; while natural gas connections for new C&I customers increased by 26.0% from 23,200 site connections in 2017 to 29,226 site connections in 2018. 77.9% of the gas connection fees in 2018 were derived from residential households compared to 77.2% of the gas connection fees in 2017, with the remainder of the fees derived from C&I customers. At the end of 2018, we had achieved a piped gas penetration rate for residential households of 58.8%, up from 57.5% at the end of 2017. Construction and installation fees accounted for 9.7% of our total revenue in 2018 as compared to 12.3% of our total revenue in 2017. Our profit margin from construction and installation fees decreased to 58.8% in 2018 from 62.7% in 2017. This is primarily due to more connections to rural users which had lower gross profit margin.

Cost of sales

Cost of sales increased by RMB11,258 million, or 28.2%, to RMB51,188 million in 2018 from RMB39,930 million in 2017, primarily due to increased gas sales, leading to a corresponding increase in costs associated with the purchase of gas.

Gross profit

As a result of the foregoing factors, our gross profit increased by RMB1,171 million, or 14.0%, to RMB9,510 million in 2018 from RMB8,339 million in 2017.

Our gross profit margin decreased to 15.7% in 2018 from 17.3% in 2017. The decrease was due to changes in our income structure. The proportion of our revenue represented by gas wholesale business increased by 5.2%, which is a relatively lower margin business. Similarly, the proportion of our revenue represented by construction and installation business with higher gross profit margin decreased by 2.6%.

Other income

Other income increased 40.4% to RMB949 million in 2018 from RMB676 million in 2017, primarily as a result of dividend income from financial assets of RMB352 million primarily reflecting dividends received from one of the financial assets. This effect was partially offset by a decrease in interest income from our bank deposits.

Other gains and losses

In 2018, there was a loss of RMB1,634 million compared to a loss of RMB895 million in 2017. The greater loss in 2018 was primarily the result of a drop in oil prices, which led to a net loss of RMB745 million on financial assets/liabilities arising from our commodity derivative contracts. We also experienced an exchange loss of RMB707 million arising from the translation of our U.S. dollar and HK dollar denominated bonds to RMB. Our other loss in 2017 was driven primarily by an RMB478 million impairment loss on property, plant and equipment due to the loss of key customers in the last quarter of 2017 by our two wholly-owned subsidiaries located in the United States and Canada.

Distribution and selling expenses

Distribution and selling expenses increased 24.4% to RMB790 million in 2018 from RMB635 million in 2017, primarily due to the increase in staff costs incurred in connection with an increase in our group size and business growth, as more new project companies were formed and our distribution and selling expenses increased in line with our increases in revenue. As a percentage of revenue, selling expenses were largely consistent at approximately 1.3% in both 2017 and 2018.

Administrative expenses

Administrative expenses increased 12.5% to RMB2,673 million in 2018 from RMB2,377 million in 2017, primarily as a result of the increase in staff costs and research and development costs incurred in connection with an increase in our group size and business growth, as more new project companies were formed and our administrative expenses increased in line with our increases in revenue. As a percentage of revenue, administrative expenses were approximately 4.4% in 2018 compared to approximately 4.9% in 2017.

Share of results of associates

Our share of results of associates increased significantly to RMB275 million in 2018 from RMB129 million in 2017 primarily due to the growth in the business size of our existing associates due to increases in gas sales and net profits and also to incremental business brought by newly acquired associates.

Share of results of joint ventures

In 2018, our share of results of joint ventures increased 19.0% to RMB601 million from RMB505 million in 2017. The increase was primarily attributable to the growth in the business size of our joint ventures due to increases in gas sales to customers and vehicles.

Finance costs

Finance costs increased 15.4% to RMB637 million in 2018 from RMB552 million in 2017, due primarily to an increase in the amount of new bank loans, as reflected in the increase of our total debt as of the end of 2018 by about 12.1% compared to the end of 2017, resulting in a corresponding increase in interest on bank and other loans.

Profit before tax

As a result of the cumulative effect of the foregoing, profit before income tax increased 7.9% to RMB5,601 million in 2018 from RMB5,190 million in 2017. Our net profit margin decreased to 6.3% in 2018 from 7.6% in 2017 due to the exchange losses and fair value losses in convertible bonds and derivative financial instruments.

Income tax expense

Income tax expense increased 17.5% to RMB1,783 million in 2018 from RMB1,517 million in 2017 mainly due to the increase in profit before tax. See "— *Certain Income Statement Items — Taxation*."

Profit for the year

As a result of the foregoing factors, our profit for the year in 2018 increased by 3.9% to RMB3,818 million from RMB3,673 million in 2017.

Liquidity and Capital Resources

Our primary uses of cash have been, and are expected to be, the funding of operating and capital expenditures. We have funded, and expect to continue to fund, our operating and capital expenditures through operating cash flows (particularly revenue from gas sales which has become our major source of income), internal liquidity, equity and note issuances and bank and other loans. Our most recent offshore note issuance was the issuance of US$600 million senior bonds due 2022 on July 24, 2017. See "*Description of Other Material Indebtedness.*"

Our cash and cash equivalents as of December 31, 2017, 2018 and 2019 and June 30, 2019 and 2020 were RMB7,972 million, RMB7,923 million, RMB7,373 million, RMB7,742 million and RMB7,938 million, respectively. As of December 31, 2017, 2018 and 2019 and June 30, 2019 and 2020, our total debt was RMB18,067 million, RMB20,249 million, RMB19,145 million, RMB19,181 million and RMB20,720 million, respectively. Our net debt to total equity ratio (including non-controlling interests), was 49.9% in 2017, 48.2% in 2018, 37.9% in 2019, 40.8% as of June 30, 2019 and 40.0% as of June 30, 2020.

As of December 31, 2017, 2018 and 2019 and June 30, 2019 and 2020, we had net current liabilities of RMB7,979 million, RMB11,478 million, RMB11,773 million, RMB10,449 million and RMB14,177 million, respectively.

The current liabilities mainly include a large amount of receipts in advance of gas fee, and construction and installation contracts. These funds are stable and will normally not be returned; therefore, we will invest the funds in the development of new projects and maintain a reasonable cash level, resulting in net current liabilities.

As of June 30, 2020, our net current liabilities slightly increased as compared to last year due to the impending maturity of our senior notes. We will continue to monitor the market change in order to take advantage of any opportunity to refinance our senior notes through the issuance of offshore long-term bonds

We will continue to meet our working capital requirements and future capital expenditure requirements through our stable operating cash flow, high quality current assets and good credit ratings, plus sufficient cash on hand, unutilised banking facilities and debt issuance quota.

As of December 31, 2019, we had secured credit facilities of approximately RMB13,448 million which remained unutilized. As of June 30, 2020, we had secured credit facilities of approximately RMB10,379 million which remained unutilized and we believe such credit facilities are sufficient to sustain our operating cashflow.

Cash Flow

As we are a holding company with no material business operations, sources of income or operating assets of our own other than our interests in subsidiaries, our cash flow and, consequently, our ability to meet debt servicing obligations, is dependent upon the funds paid to us by our subsidiaries in the form of dividends, loans, advances or otherwise.

The following table presents selected cash flow data from our consolidated statements of cash flow for the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020:

	Year ended December 31				Six months ended June 30		
	2017	2018	2019		2019	2020	2020
	RMB million (Restated)	*RMB million*	*RMB million*	*US$ million*	*RMB million*	*RMB million*	*US$ million*
Net cash from operating activities							
Operating cash flows before movements in working capital [(1)]	6,797	7,728	9,556	1,353	4,851	5,135	727
Net movements in working capital [(2)]	767	2,518	3,589	508	127	(1,128)	(160)
Cash generated from operation	7,564	10,246	13,145	1,861	4,978	4,007	567
Net cash generated from operating activities	6,093	8,294	11,690	1,655	4,294	3,213	455
Net cash used in investing activities	(4,532)	(6,602)	(6,796)	(962)	(1,156)	(3,345)	(473)
Net cash (used in) generated from financing activities	(708)	(1,774)	(5,447)	(771)	(3,319)	693	98
Net increase (decrease) in cash and cash equivalents	853	(82)	(553)	(78)	(181)	561	80

Notes:

(1) Represents profit before tax as adjusted for items such as share of results of associates and joint ventures, exchange differences, fair value loss on convertible bonds and financial assets/liabilities, bargain purchase gain on acquisition of businesses, impairment losses on receivables, loss (gain) on disposal of and impairment loss on property, plant and equipment, gain on disposal of prepaid lease payments and right-of-use assets, loss on deregistration/disposal of subsidiaries, gain on remeasurement of interest in joint ventures previously held, gain on dilution of equity interests and disposal of joint ventures, loss on disposal of associates, gain on redemption of convertible bonds, dividends income from financial assets and equity instruments, increase in fair value of investment properties, share-based payment expenses, depreciation property, plant, equipment and right-of-use assets, amortisation of intangible assets, release of prepaid lease payments, financial guarantee income, interest income on bank deposits and loan receivables and finance costs.

(2) Represents the movements in inventories, trade and other receivables, contract assets, contract liabilities, amounts due from associates, amounts due from joint ventures, amounts due from related companies, trade and other payables, amounts due to joint ventures, amounts due to associates, deferred income and amounts due to related companies.

Cash flows from operating activities

We recorded net cash generated from operating activities of RMB3,213 million for the six months ended June 30, 2020. Our operating cash flows before movements in working capital is increased. The primary movements in our working capital were an increase in contract liabilities, a decrease in trade and other receivables, an increase in amounts due to related companies and a decrease in inventories. These movements were partially offset by a decrease in trade and other payables and an increase in amounts due from joint ventures. As a result, our cash generated from operating activities is decreased.

We recorded net cash generated from operating activities of RMB11,690 million for the year ended December 31, 2019. Our operating cash flows before movements in working capital were RMB9,556 million. The primary movements in our working capital were an increase in contract liabilities of

RMB2,185 million, a decrease in trade and other receivables of RMB1,631 million, an increase in amounts due to related companies of RMB266 million and a decrease in inventories of RMB216 million. These movements were partially offset by a decrease in trade and other payables of RMB445 million and an increase in amounts due from joint ventures of RMB198 million. In addition, our resulting cash generated from operating activities of RMB13,145 million was partially offset by PRC enterprise income tax paid of RMB1,455 million.

We recorded net cash generated from operating activities of RMB8,294 million for the year ended December 31, 2018. Our operating cash flows before movements in working capital were RMB7,728 million. The primary movements in our working capital were an increase in contract liabilities of RMB1,877 million, an increase in amounts due to joint ventures of RMB1,680 million and an increase in trade and other payables of RMB956 million. These movements were partially offset by an increase in trade and other receivables of RMB1,724 million, an increase in inventories of RMB404 million and a decrease in amounts due to related companies of RMB306 million. In addition, our resulting cash generated from operating activities of RMB10,246 million was partially offset by PRC enterprise income tax paid of RMB1,952 million.

We recorded net cash generated from operating activities of RMB6,093 million for the year ended December 31, 2017. Our operating cash flows before movements in working capital was RMB6,797 million. The primary movements in our working capital were an increase in trade and other payables of RMB2,697 million and an increase in deferred income of RMB594 million. These movements were partially offset by an increase in trade and other receivables of RMB2,139 million, an increase in amounts due from customers for contract work of RMB250 million and an increase in inventories of RMB220 million. In addition, our resulting cash generated from operating activities of RMB7,564 million was partially offset by PRC enterprise income tax paid of RMB1,471 million.

Cash flows from investing activities

Net cash used in investing activities was RMB3,345 million for the six months ended June 30, 2020. The net cash used in investing activities in the first half of 2020 was primarily attributable to our purchase of property, plant and equipment of RMB2,237 million and the acquisition of subsidiaries and businesses of RMB294 million, advances to joint ventures and associates of RMB273 million, partially offset by amounts repaid by joint ventures and associates of RMB152 million and dividends received from joint ventures and associates of RMB55 million.

Net cash used in investing activities was RMB6,796 million for the year ended December 31, 2019. The net cash used in investing activities in 2019 was primarily attributable to our purchase of property, plant and equipment of RMB7,146 million and the acquisition of subsidiaries and businesses of RMB1,175 million, partially offset by amounts repaid by joint ventures of RMB812 million and dividends received from joint ventures of RMB404 million.

Net cash used in investing activities was RMB6,602 million for the year ended December 31, 2018. The net cash used in investing activities in 2018 was primarily attributable to our purchase of property, plant and equipment of RMB5,918 million, additions in the investment in associates of RMB1,121 million and amounts advanced to joint ventures of RMB696 million, partially offset by amounts repaid by joint ventures of RMB804 million and dividends received from joint ventures of RMB463 million.

Net cash used in investing activities was RMB4,532 million for the year ended December 31, 2017. The net cash used in investing activities in 2017 was primarily attributable to our purchase of property, plant and equipment of RMB4,527 million, our addition of restricted bank deposits of RMB3,419 million and amounts advanced to joint ventures of RMB308 million, partially offset by release of restricted bank deposits of RMB3,533 million and dividends received from joint ventures of RMB545 million.

Cash flows from financing activities

We had net cash generated from financing activities of RMB693 million for the six months ended June 30, 2020. The net cash used in financing activities in the first half of 2020 was primarily due to the repayment of bank loans of RMB4,944 million, dividends paid to non-controlling shareholders of RMB255 million and amounts repaid to joint ventures of RMB192 million. These amounts were partially offset by new bank loans raised of RMB6,250 million.

We had net cash used in financing activities of RMB5,447 million for the year ended December 31, 2019. The net cash used in financing activities in 2019 was primarily due to the repayment of bank loans of RMB10,561 million, repayment of corporate bonds of RMB2,500 million, dividends paid to shareholders of RMB1,176 million and amounts repaid to joint ventures of RMB1,106 million. These amounts were partially offset by new bank loans raised of RMB9,900 million and proceeds from the issuance of corporate bonds of RMB2,093 million.

We had net cash used in financing activities of RMB1,774 million for the year ended December 31, 2018. The net cash used in financing activities in 2018 was primarily due to proceeds used in redemption of convertible bonds of RMB3,771 million, repayment of bank loans of RMB3,667 million and repayment of corporate bonds of RMB3,000 million. These amounts were partially offset by new bank loans raised of RMB11,519 million and advances from joint ventures of RMB552 million.

We had net cash used in financing activities of RMB708 million for the year ended December 31, 2017. The net cash used in financing activities in 2017 was primarily due to repayment of bank loans of RMB7,687 million. These amounts were partially offset by new bank loans raised of RMB5,797 million and proceeds from issuance of unsecured bonds of RMB4,037 million.

Indebtedness

Borrowings

As of December 31, 2019, our total debt was RMB19,145 million (US$2,710 million) compared to total debt of RMB20,249 million as of December 31, 2018.

As of June 30, 2020, our total debt was RMB20,720 million (US$2,933 million) compared to total debt of RMB19,181 million as of June 30, 2019.

As of June 30, 2020, our total debt included U.S. dollar denominated bank loans and notes (including our 2011 Senior Notes and 2017 Bonds) amounted to US$1,943 million (RMB13,730 million). The remaining bank and other loans included in our total debt as of June 30, 2020 were Renminbi-denominated loans. See "*Description of Other Material Indebtedness.*"

In addition to the 2011 Senior Notes and 2017 Bonds, the 2019 Corporate Bonds are also at fixed coupons. Our other U.S. dollar loans bear interest at floating rates. The remaining Renminbi bank and other loans, which were granted to certain of our project companies to cover capital expenditures, working capital and operating expenditures, bear interest at fixed rate or at floating rate with reference to a benchmark rate, such as the interest rates announced by the PBOC.

The only debt that was secured as of June 30, 2020 were bank and other loans in amounts equivalent to RMB457 million. The secured loans were secured by pledge of property, plant and equipment, investment properties and rights to receive fee income of certain of our subsidiaries and joint ventures. As of June 30, 2020, the net asset value of the assets securing the loans was RMB525 million.

As of June 30, 2020, our short-term loans amounted to RMB10,620 million.

As of June 30, 2020, we had secured credit facilities of approximately RMB10,379 million which remained unutilized.

Contingent Liabilities

As of June 30, 2020, we had outstanding guarantees issued to banks to secure loan facilities granted to an associate and joint ventures for approximately RMB633 million compared to RMB726 million as of December 31, 2019.

Capital Commitments and Contractual Obligations

As of December 31, 2017, 2018 and 2019 and June 30, 2019 and 2020, we had capital commitments of RMB643 million, RMB1,113 million, RMB1,021 million, RMB1,066 million and RMB939 million, respectively, from capital expenditures in respect of acquisition of property, plant and equipment contracted for but not provided in the consolidated financial statements. As of December 31, 2017, 2018 and 2019 and June 30, 2019 and 2020, we also had capital commitments of RMB207 million, RMB212 million, RMB495 million, RMB230 million and RMB580 million, respectively, related to investments in joint ventures. As of December 31, 2017, 2018 and 2019 and June 30, 2019 and 2020, we also had capital commitments of RMB86 million, RMB219 million, RMB518 million, RMB321 million and RMB424 million, respectively, related to investments in associates. As of December 31, 2017, 2018 and 2019 and June 30, 2019 and 2020, we had other commitments amounting to RMB86 million, RMB92 million, RMB259 million, RMB20 million and RMB5 million, respectively, related to other equity investments.

The following table presents as of June 30, 2020, the scheduled maturities of our contractual obligations for debts and operating leases. The amounts included in the following table do not include future interest payments and are not discounted to take into account the time value of money.

	Payments due by period			
Contractual Obligations	**Total**	**Less than 1 year**	**After 1 year but within 5 years**	**More than 5 years**
	RMB million	*RMB million*	*RMB million*	*RMB million*
Current debt obligations	10,620	10,620	—	—
Non-current debt obligations	10,100	—	9,020	1,080
Operating lease obligations [1]	590	124	237	229
Total	21,310	10,744	9,257	1,309

Note:

(1) Represents our commitments for future minimum lease payments under non-cancellable operating leases in respect of rented premises.

Capital Expenditures

Our capital expenditures were RMB5.12 billion in 2017, RMB8.10 billion in 2018, RMB8.92 billion in 2019 and RMB2.86 billion in the first half of 2020, and primarily consisted of expansion relating to the acquisition of property, plant and equipment, investments in integrated energy projects and acquisition of new projects.

Our future capital requirements will include expenditures for similar activities. We expect to finance these capital requirements from cash flows from operations, internal liquidity, bank loans, bond issuances and the net proceeds received from the offering of the Notes. As discussed above, as of December 31, 2019 we had contractual commitments for capital expenditures of RMB2,293 million, primarily for purposes of acquiring property, plant and equipment. In 2020, we plan to continue to invest in capital projects primarily for acquisition of property, plant and equipment, investments in new integrated energy projects and acquiring new projects.

After giving effect to the offering of the Notes, and taking into account our operating cash flows and bank borrowings, we believe we will have sufficient resources to meet our anticipated capital expenditure requirements during the 2020 fiscal year. See "*Use of Proceeds*." In order to finance our continued expansion, we may in the future consider public offerings or private placements of equity, debt or convertible securities. However, we cannot assure you that we will be able to raise additional capital to meet our capital expenditure requirements on terms acceptable to us or at all. See "*Risk Factors — Risks Relating to Our Business — If we are unable to fund our substantial capital expenditure requirements on terms we deem acceptable, it may adversely affect our prospects and future operations.*"

Off-Balance Sheet Arrangements

In the ordinary course of our business, we enter into operating lease commitments, capital commitments and other contractual obligations, as discussed above. These commitments and obligations are disclosed in our consolidated financial statements in accordance with HKFRS.

Market Risks

Our operations expose us to foreign currency exchange risk, interest rate risk, commodity price risk and other price risk.

Foreign Currency Risk

The functional currency of most of our entities is RMB in which most of our transactions are denominated. However, certain loans, senior notes and unsecured bonds issued by us, receivables and payables and certain bank balances kept by us are denominated in foreign currencies.

To mitigate the foreign exchange exposure, we enter into various foreign currency derivatives with certain financial institutions during the current and prior years as set out in Note 25 to our 2019 Audited Consolidated Financial Statements. Our management monitors foreign exchange exposure and will consider to hedge its foreign exchange exposure should the need arises.

The carrying amounts of our foreign currency denominated monetary assets and monetary liabilities at the end of the reporting period are as follows:

	Assets			Liabilities		
	2017	2018	2019	2017	2018	2019
	(RMB million)					
Foreign currency:						
U.S. dollar	1,988	578	129	10,579	12,349	11,702
HK$.	116	7	23	—	478	1,380

The following table details our sensitivity to a reasonable possible change in exchange rate of each foreign currency against RMB, while all other variables are held constant. The sensitivity analysis includes only outstanding monetary items denominated in foreign currency without considering the impact of the foreign currency derivatives and adjusts their translations at the end of the reporting period for a change in foreign currency exchange rate as set out below:

	U.S. dollar			HK$		
	2017	**2018**	**2019**	**2017**	**2018**	**2019**
			(%)			
Possible change in foreign exchange rate	5	5	5	5	5	5
	2017	**2018**	**2019**	**2017**	**2018**	**2019**
			(RMB million)			
(Decrease) increase in profit after taxation for the year:						
If RMB weakens against foreign currencies	(439)	(592)	(580)	6	(24)	(68)
If RMB strengthens against foreign currencies	439	592	580	(6)	24	68

In the opinion of the Directors, the sensitivity analysis is unrepresentative of the inherent foreign exchange risk as the year end exposure and does not reflect the exposure during the year, and some of the Group's foreign currency exposure has been reduced due to the offsetting effect of the foreign currency derivatives.

See "*Risk Factors — Risks Relating to Doing Business in PRC — Fluctuations in the value of Renminbi may adversely affect our business and the value of distributions by our PRC subsidiaries*" for a description of the risks relating to fluctuations in the value of the Renminbi.

Interest Rate Risk

We do not have any specific interest rate hedging policy except that we would regularly review the market interest rates to capture the potential opportunities to reduce the cost of borrowings. Accordingly, we will enter into interest rate swap arrangement to mitigate the interest rate risk if appropriate.

Fair value interest rate risk

Our fair value interest rate risk relates primarily to non-current amounts due from associates and joint ventures, amounts due to associates and joint ventures, and fixed-rate bank and other loans, corporate bonds, senior notes and unsecured bonds (see Notes 29, 30, 41, 42, 43 and 44 to our 2019 Audited Consolidated Financial Statements for details of these amounts, loans, bonds and notes respectively).

The fair value interest rate risk on bank balance and deposits is insignificant as the terms of the fixed deposits are relatively short.

Cash flow interest rate risk

Our cash flow interest rate risk relates primarily to floating-rate bank loans (see Note 41 to our 2019 Audited Consolidated Financial Statements for details of these amounts). The Directors consider that the Group is not exposed to significant cash flow interest rate risk relating to bank deposits, which are primarily short term in nature and basically carried at stable market interest rates.

Our sensitivity to cash flow interest rate risk has been determined based on the exposure to interest rates for the floating rate bank loans. The analysis is prepared assuming that the amount of liabilities outstanding at the end of the reporting period was outstanding for the whole year and excluding the interest expected to be capitalized.

	2017	**2018**	**2019**
Possible change in interest rate	50 basis points	50 basis points	50 basis points

	2017	**2018**	**2019**
		(RMB million)	
(Decrease) increase in profit after taxation for the year			
As a result of increase in interest rate	(4)	(15)	(14)
As a result of decrease in interest rate	4	15	14

The possible change in the interest rate does not affect the equity of the Group in the periods presented.

Commodity Price Risk

In the normal course of our business, we imported LNG to satisfy the demands of downstream customers under long-term "take-or-pay" purchase agreements as set out in Note 50 to our 2019 Audited Consolidated Financial Statements. Accordingly, we are exposed to fluctuations in prevalent crude oil/gas market prices, which are used for the determination of the price of LNG. This exposure is managed with the use of derivative financial instruments. The profit or loss generated from these derivatives is dependent on the combination of contracts which generate payoffs in any particular range of commodity prices.

Derivative financial instruments are used solely for financial risk management purposes and we do not hold or issue derivative financial statements for speculation purposes. The management of the Group monitors commodity price risk exposure regularly and will consider to hedge its commodity price risk exposure should the need arises.

Sensitivity analysis on commodity derivative contracts

A decrease of 5% in relevant commodity prices at the end of the year ended December 31, 2017, 2018 and 2019 would have affected profit or loss for the years by amount shown below. These amounts represent the change in fair value of commodity derivative contracts at the reporting date.

	2017	**2018**	**2019**
		(RMB million)	
Decrease in profit before taxation for the year	(2)	(194)	(7)

Other Price Risk

We are mainly exposed to price risk through equity instrument measured at FVTPL and FVTOCI. The Directors do not implement specific measurements to mitigate the price risk.

If the market price of equity instrument measured at FVTPL and FVTOCI increased or decreased by 5%, the Group would recognise additional gains or losses for the year ended December 31, 2017, 2018 and 2019 of RMB45 million, RMB247 million and RMB248 million, respectively.

Natural Gas Market in the PRC

As a high-quality energy source, natural gas features high heat value, stable burning process and environmental friendliness. Natural gas reserves are abundant globally. Enhancing the integrated utilization of natural gas may not only carry fundamental practical significance in safeguarding national energy supply, energy security and protecting ecological environment, but also perform an irreplaceable role in making structural adjustments in energy, industry, traffic and electricity sectors in China.

Natural gas is greatly supported by the Chinese government as a type of fossil fuel that burns cleaner than oil or coal. The government is currently reducing coal consumption and increasing clean energy consumption in an attempt to improve the environment.

After two decades of effort, China has grown natural gas usage from nothing to around 7.8% of primary energy consumption in 2019 according to BP Statistical Review. According to the development guidelines set out in The 13th Five-Year Plan for Energy Development, The 13th Five-Year Plan for Natural Gas Development and The Blue Book of China's Oil and Gas Industry Development Analysis and Prospects Report (2017-2018), natural gas has been established as one of the new-generation main energy sources in China, and the proportion of natural gas in China's primary energy consumption is expected to reach 10% by 2020 and 15% by 2030. Around 2040, natural gas is expected to take up more shares than oil in China's total energy consumption, becoming the second largest energy source for the country.

Favourable Government Policies

In recent years, the PRC government has issued a series of policies to encourage the development and adoption of natural gas. Below are examples of favourable government policies in the PRC:

Promote Domestic Energy Restructuring Reform to Elevate the Ratio of Natural Gas Consumption

- Optimize energy mix so that natural gas as percentage of primary energy consumption can reach 10% by 2020 and 15% by 2030, making it China's main energy source; and

- Implement the "coal-to-gas" policy and alike to encourage clean energy.

Accelerate Domestic Natural Gas Exploration and Development and Drive the Rapid Growth of Natural Gas Reserves and Production

- Increase proved reserves of coalbed methane ("CBM") by one trillion m^3 during The 13th Five-Year Plan period and strive to achieve CBM production of 40 billion m^3 per annum by 2020; and

- In terms of conventional gas, increase proved reserves by 3.0 trillion m^3 cumulatively and achieve production of 170 billion m^3 per annum in 2014 — 2020.

Facilitate Construction of Natural Gas Pipeline Networks and Storage Facilities

- Enhance backbone network construction, accomplishing 104,000 km of main pipelines by 2020; and

- Facilitate construction of storage facilities, strengthen construction of regional underground storage tanks, and expand and improve coastal LNG and urban natural gas storage and peak shaving facilities. In regions that have high natural gas demand and require strong emergency peak shaving ability, prioritize ramp-up of storage and transport capabilities of existing LNG terminals and build new ones where appropriate to realise aggregate receiving capacity of over 100 million m^3 per annum by 2030.

Increase Natural Gas Imports, especially Piped Natural Gas and LNG

- Diversify natural gas supplies by strengthening maintenance of the natural gas flow from west to east, from south to north, from offshore to onshore, and to adjacent regions, and by building a natural gas pipeline network on that basis; leverage four major strategic import channels, including the northeast channel (Russia-China), the northwest channel (Central Asia-China), the southwest channel (Myanmar-China) and by sea; and

- Encourage LNG related imports and exempt necessary tariffs on imported equipment. To further overcome regasification constraints, the Ministry of Transport drafted a plan to build coastal and riverside LNG terminals. The draft plan aims to add a total of 165 million tonnes per annum receiving capacity and 34 berths in 13 important sites in the Bohai Rim, Yangtze River Delta and Guangdong-Guangxi region.

Improve Natural Gas Pricing Mechanism

- Create a pricing mechanism that reflects scarcity of resources and market supply-demand dynamics, and relax competitive pricing based on the principle of "keeping midstream in control while liberalising upstream and downstream;

- Establish an automatic pass-through pricing mechanism; and

- Enhance governmental pricing and monitoring of transmission and distribution.

Natural Gas Demand in the PRC

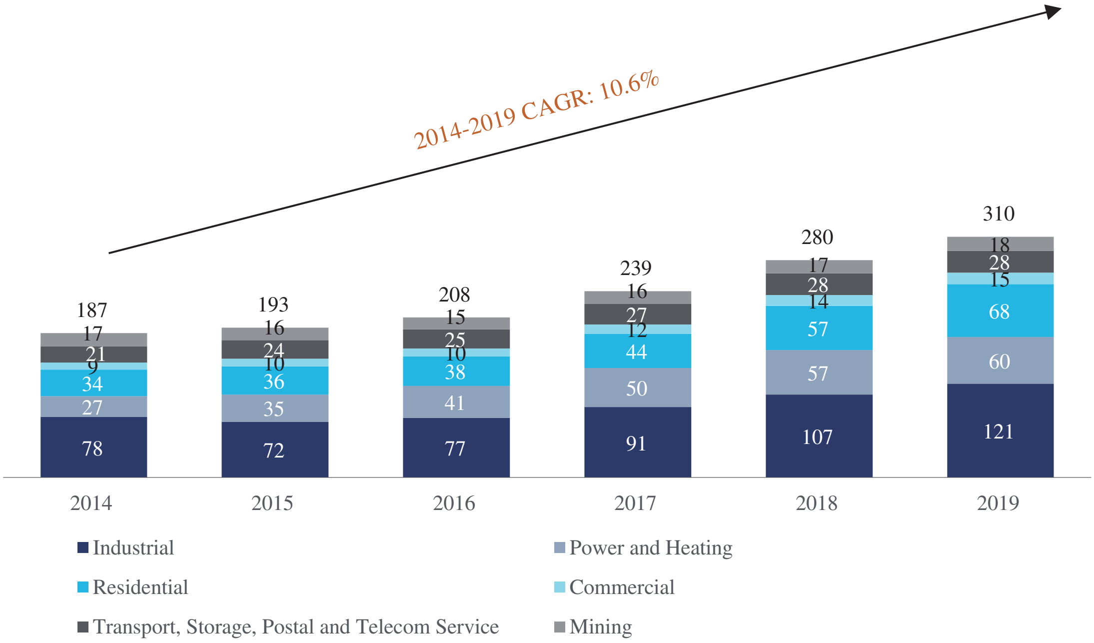
The development and utilization of natural gas in China have been growing fast since the formal commercial operation of the West-East Gas Pipeline Project in 2004. However, the proportion of natural gas in China's primary energy consumption is still relatively low and China's gas consumption per capita is only 1/3 of the world's consumption level, which is mainly due to the lack of infrastructure in the industry and high reliance on external resources. In recent years, natural gas consumption in China has been showing a momentum of rapid growth, with the opening of the West-East Gas Pipeline, China-Central Asia gas pipeline, China-Myanmar gas pipeline, Russian gas pipeline and LNG receiving terminals in coastal areas as well as the implementation of polices on air pollution prevention and control, and the "coal-to-gas" substitution campaign.

According to statistics published by the NDRC, natural gas consumption in China in 2019 reached 306.7 billion m3, representing a year-on-year increase of 9.4%. Going forward, the Chinese government plans to increase the proportion of natural gas in China's primary energy consumption to 10% by 2020 and 15% by 2030. Meanwhile, China has also become the second largest LNG importer and the third largest natural gas consumer in the world.

The growth in total natural gas demand will be primarily driven by industrial, commercial, residential and district heating.

The charts below set forth China's total natural gas demand breakdown by segment from 2014 to 2019.

China's total natural gas demand
(bn m^3)



Source: CEIC.

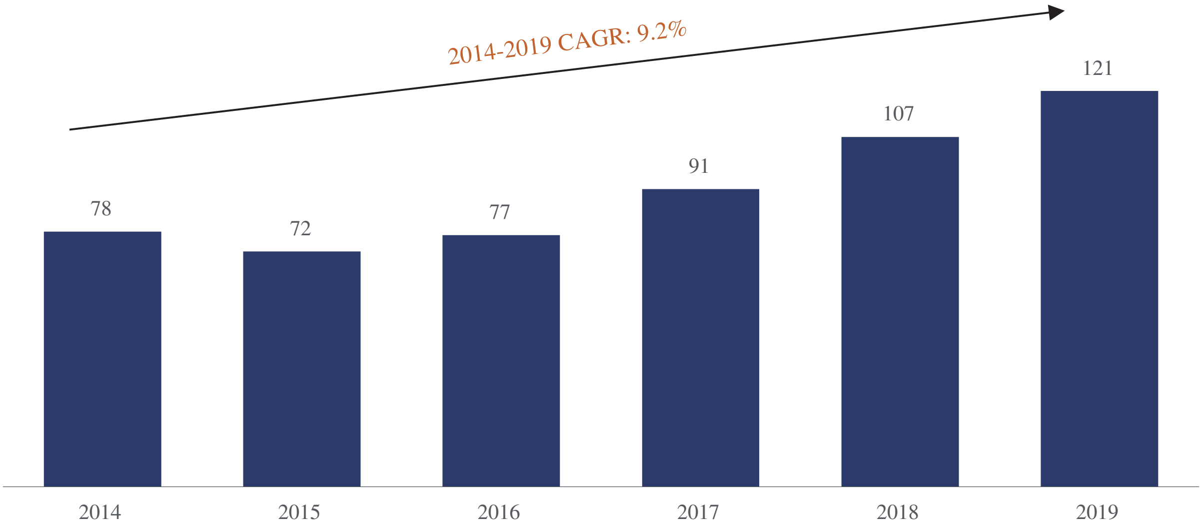
The industrial sector uses natural gas as a fuel for producing heating, in combined heat and power systems, and as a raw material (feedstock) to produce chemicals, fertilizer, and hydrogen. In 2019, the industrial sector accounted for about 39% of total China natural gas demand. The power sector uses natural gas to generate electricity. In 2019, the power sector accounted for about 19% of total China natural gas demand. The residential sector uses natural gas to heat buildings and water, to cook, and to dry clothes. In 2019, the residential sector accounted for about 22% of total China natural gas consumption. The commercial sector uses natural gas to heat buildings and water, to operate refrigeration and cooling equipment, to cook, to dry clothes, and to provide outdoor lighting. Some consumers in the commercial sector also use natural gas as a fuel in combined heat and power systems. In 2019, the commercial sector accounted for about 5% of total China natural gas consumption. The transportation sector uses natural gas as a fuel to operate compressors that move natural gas through pipelines and as a vehicle fuel in the form of compressed natural gas and liquefied natural gas. In 2019, the transportation sector accounted for about 9% of total China natural gas consumption.

Natural gas demand — industrial

Industrial sector is the backbone supporting the growth of natural gas consumption in China, led by the chemical and manufacturing sectors. Demand from the industrial sector is the key driver of China's natural gas demand, driven by environmental policies and the expansion of industrialization. China's industrial gas demand was around 121 billion m^3, or nearly 40% of the overall demand. As China adopts stringent environmental measures, natural gas demand from China's inland regions is expected to grow more in the future with industrial transfer.

According to CEIC, China's natural gas demand from industrial sector rose from 78 billion m^3 in 2014 to 121 billion m^3 in 2019, representing a CAGR of 9.2%.

China's natural gas demand — industrial
(bn m^3)



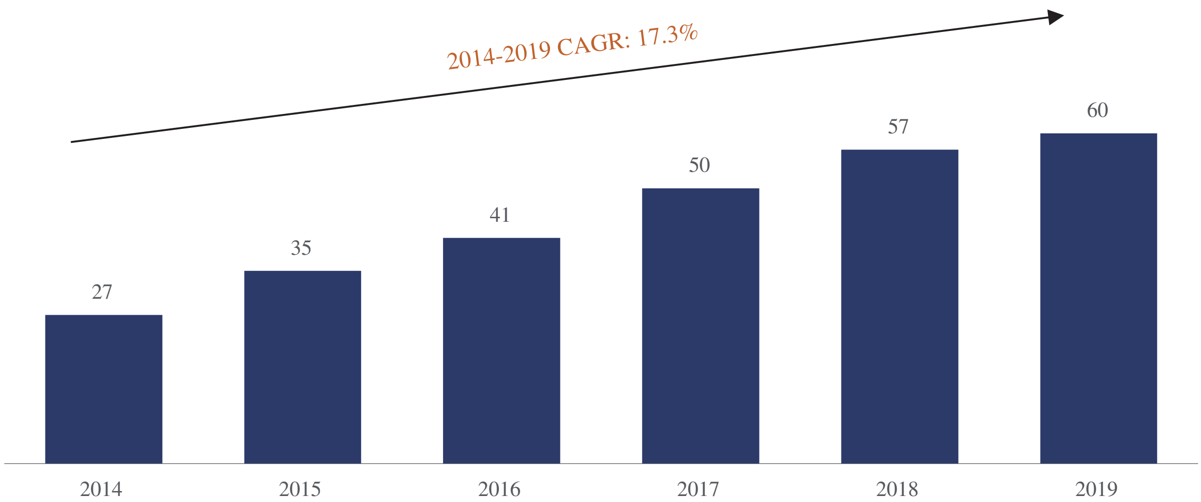
Source: CEIC.

Natural gas demand — power and heating

In Dec 2017, the NDRC published the winter heating plans for northern China. Four green heating methods were introduced: centralized coal heating (or clean coal), gas, power and renewables, all of which should serve as alternatives to the current bulk coal, which has been the major source of air pollution during winter times. According to the plan, gas contribution to winter heating should rise from 11% in 2016 to 23% by 2021. Such boost is also planned for others: centralized coal (from 17% to 53%), power (from 2% to 7%) and renewables (from 4% to 15%). As such, power and heating forms and will continue to form an integral part of China's natural gas demand both currently and for the foreseeable future.

According to CEIC, China's natural gas demand from power and heating rose from 27 billion m^3 in 2014 to 60 billion m^3 in 2019, representing a CAGR of 17.3%.

China's natural gas demand — power and heating
(bn m^3)

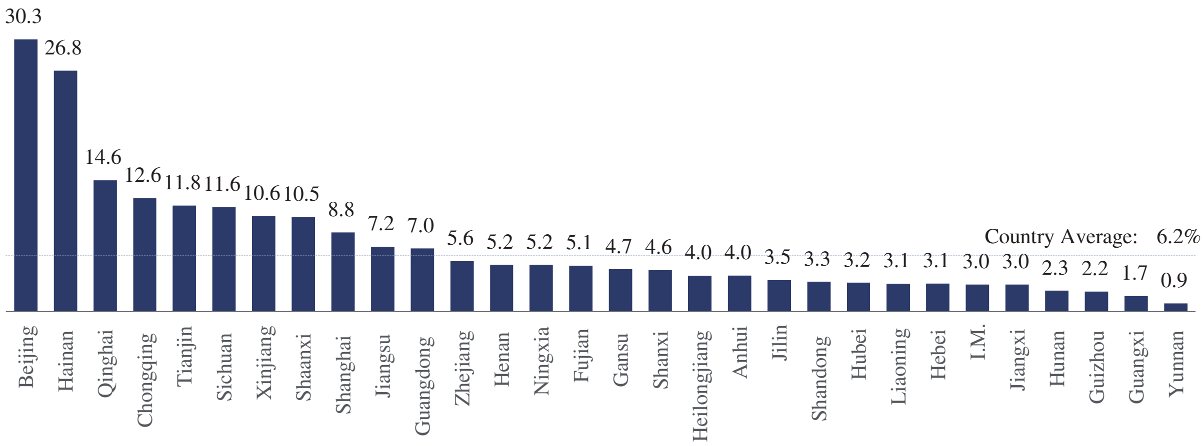


Source: CEIC.

In particular, heating demand could be huge in northeast China. Due to long-standing supply constraints, the three North-eastern provinces were among the most undersupplied locations within the country, with gas contributing 3-4% of primary energy consumption locally, much lower than the national average of 6.2% in 2016.

As these provinces are also among the coldest locations in the country, heating demand has been substantial. Over the years, centralized heating in the cities have relied on coal, which are abundant in China but comes with environmental damage. Therefore, replacing the coal-based facilities with gas would help address the gap between supply and demand as well as improving air quality. Currently, local gas demand is largely driven by the industrial sector, particularly the manufacturing and mining industries. Penetration of heating, transportation and residential users were significantly below national averages. After Beijing becoming a fully gasified city, a growing number of cities in the Northern region are looking at gas-based centralized heating as an effective environmental solution and Northeast should not be an exception. In addition, regions around Yangtze River Delta without centralized heating services are also deemed as new growth markets for gas heating demand in recent years.

Natural gas consumption as percentage of total energy consumption (2016)



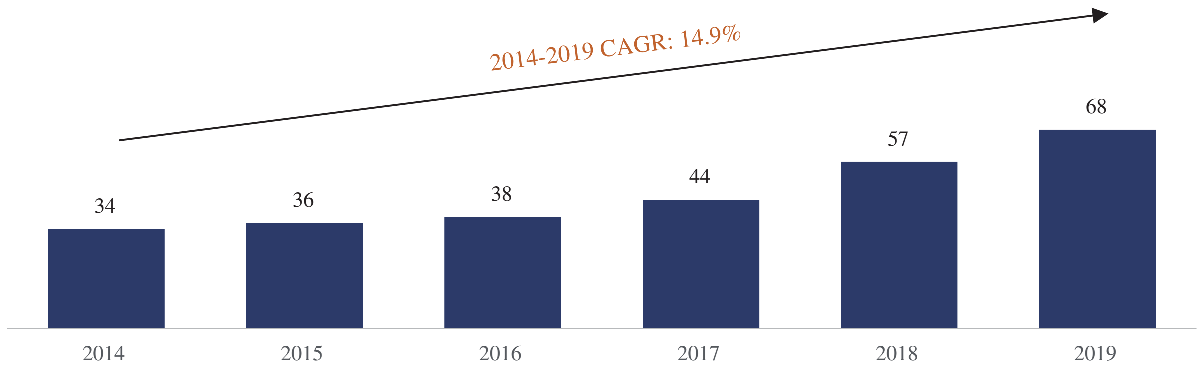
Source: CEIC.

Natural gas demand — residential

Another rising driver is the introduction of rural gas, which kicked off in later 2016. The initial implementation was in 2+26 cities (Beijing + Tianjin + 26 other cities in northern China). Total heating area is expected to increase from 1.2 billion m3 in 2016 to 3.0 billion m3 in 2021, with rural gas accounting for 37% of the increment. Compared with the national plan, the 2+26 area would account for 72% of the incremental gas heating demand. According to the Blue Sky Action Plans released in July 2018, the gas-based heating area was expanded to Fenwei Plains (11 cities and 1 demonstration zone in Shaanxi, Shanxi and Henan). In addition, the rapid development of urbanization helped boost the number of connectable residential households, and the penetration rate for urban residents also contributes to the increasing residential gas consumption.

According to CEIC, China's natural gas demand from the residential sector rose from 34 billion m3 in 2014 to 68 billion m3 in 2019, representing a CAGR of 14.9%.

China's natural gas demand — residential
(bn m^3)



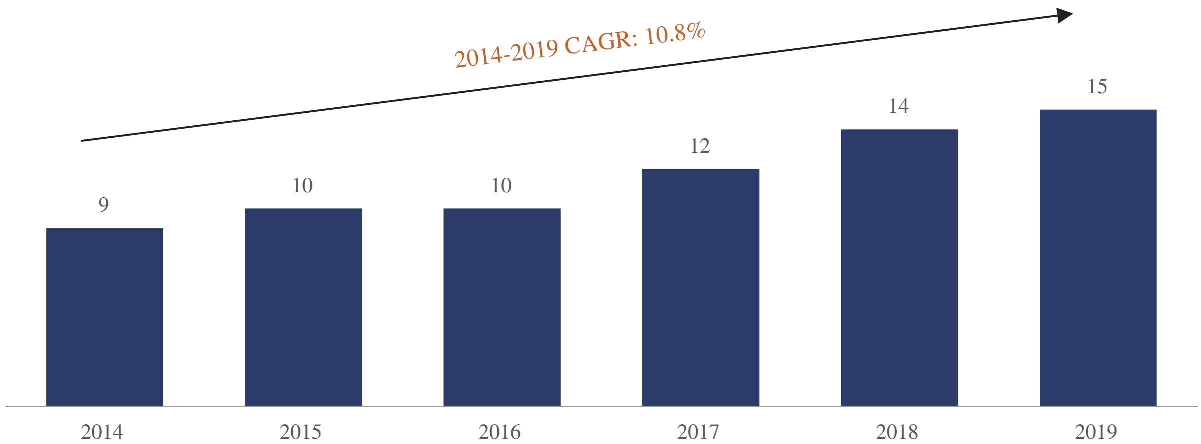
Source: CEIC.

Natural gas demand — commercial

This group of customers is generally fragmented but less sensitive to utility costs. Despite lower contribution (~5% of overall gas demand), commercial gas sales (including hotels, restaurants, hospitals, schools and other general public services) have been steadily increasing during recent years.

According to CEIC, China's natural gas demand from commercial rose from 9 billion m^3 in 2014 to 15 billion m^3 in 2019, representing a CAGR of 10.8%.

China's natural gas demand — commercial
(bn m^3)



Source: CEIC.

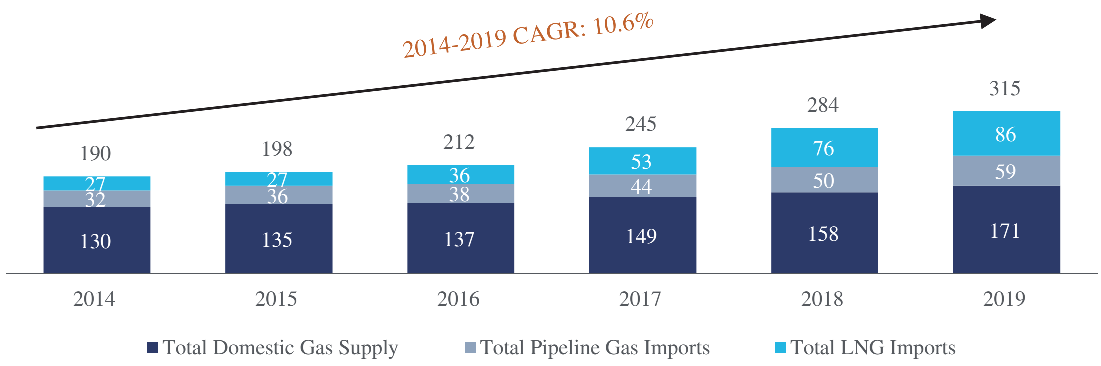
Natural Gas Supply in the PRC

While natural gas has played an important role in China's evolving energy mix and demand momentum should continue on a structural pace, supply side changes are becoming increasingly critical to China's overall natural gas system as well, with the severe gas shortage in the past winter of 2017 highlighting its importance.

In State Council's Natural Gas Coordination and Development plans published in early September 2018, the long-standing emphasis on demand has moved to a coordinated development plan among demand, supply and storage. Together with the ongoing industry reform of allowing more third-party access to production and infrastructure, some of the city gas companies could also benefit from supply side opportunities. To meet increasing demand, three supply side drivers have been identified: (i) increase in domestic production, especially from unconventional sources such as shale gas and CBM; (2) Russian gas coming into Northeast China bringing in a new round of gasification boom; and (3) more seaborne LNG imports calling for construction of more receiving terminals.

According to CEIC, China's total natural gas supply rose from 190 billion m^3 in 2014 to 315 billion m^3 in 2019, representing a CAGR of 10.6%.

China's total natural gas supply
(bn m^3)



Source: National Bureau of Statistic.

In 2019, the total natural gas supply in China is around 315 billion m^3. The domestic gas supply, the imported gas from pipelines, and the imported LNG accounted for 54%, 19% and 27% of total China natural gas supply, respectively.

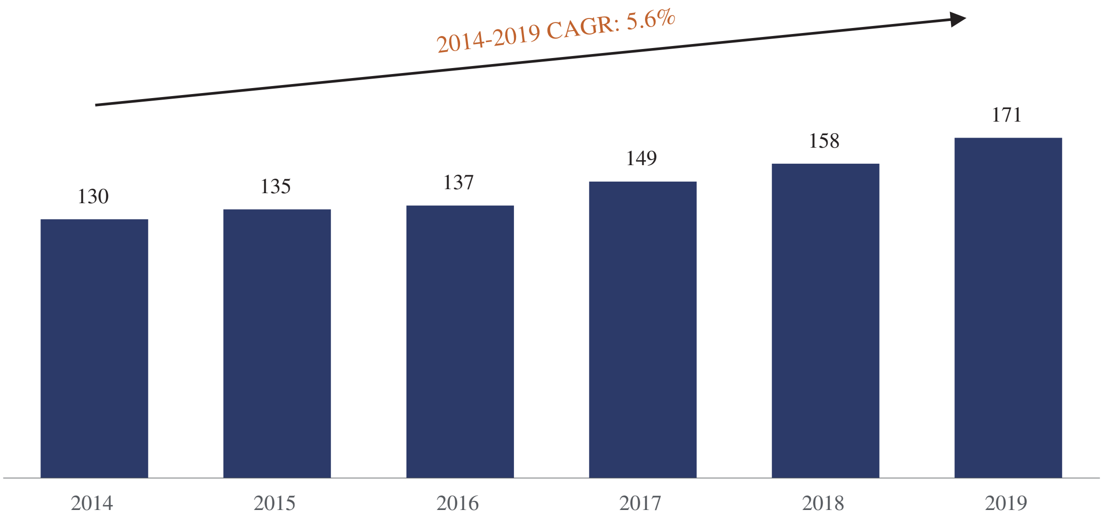
Natural gas supply — domestic

With the structural natural gas demand growth driven by the Chinese government's aim to bring natural gas to reach 10% primary energy consumption by 2020, import dependency is set to continue to rise. Considering the global trade developments are at heightened discussions recently, national energy security is being re-emphasized as a key agenda item in China, with an aim to stimulate domestic production to ensure import dependency is under control.

In September 2018, the State Council issued a document with plans on encouraging China's natural gas development. The document itself is more of a top-down directional order and left a number of actionable items to working-level ministries. Noteworthy is that the document stated clearly that Chinese National Oil Companies ("NOCs") should increase domestic upstream exploration and development effort — obviously with the aim of stimulating domestic production. Other highlights include accelerating gas storage facilities construction, accelerating gas pipeline spin-off process, as well as ensuring new residential gas prices are properly implemented after the May 2018 price convergence announcement. Both CNPC and CNOOC have vowed to increase exploration and development efforts in response to State Council's call.

According to CEIC, China's natural gas supply from domestic production rose from 130 billion m3 in 2014 to 171 billion m3 in 2019, representing a CAGR of 5.6%.

China's natural gas supply — domestic
(bn m^3)



Source: National Bureau of Statistics.

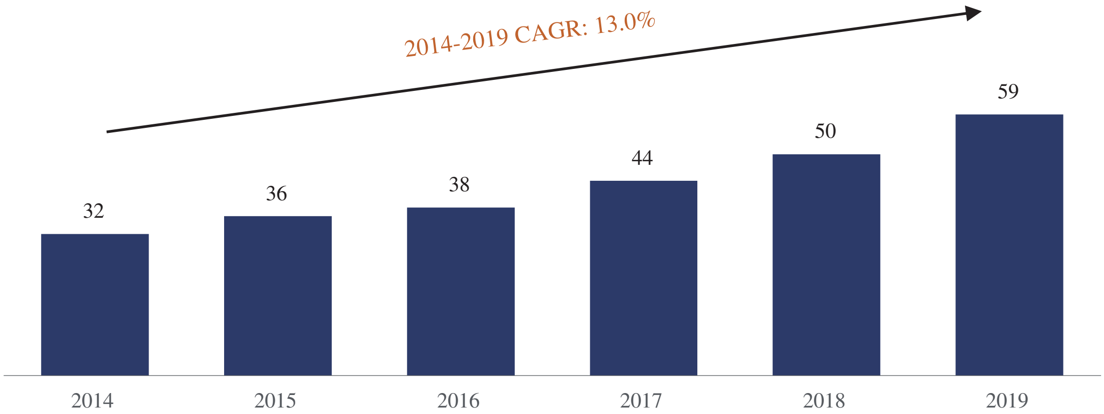
Natural gas supply — pipeline gas imports

Another new supply is Russian gas. Russia has been looking into the opportunity of selling natural gas to China over the past two decades, in a way to diversify its risk of selling solely into Europe via Ukraine. Discussions between China and Russia started since 2004 when the first agreement of strategic cooperation was signed.

In May 2014, Gazprom and CNPC signed the Purchase and Sales Agreement for gas to be supplied via the eastern route (Power of Siberia gas pipeline). The 30-year Agreement provides for Russian gas deliveries to China in the amount of 38 billion m^3 per annum. On December 2, 2019, Power of Siberia was brought into operation and the first-ever pipeline supplies of Russian gas to China were launched.

According to CEIC, China's natural gas supply from pipeline gas imports rose from 32 billion m3 in 2014 to 59 billion m3 in 2019, representing a CAGR of 13.0%.

China's natural gas supply — pipeline gas imports
(bn m^3)



Source: National Bureau of Statistics.

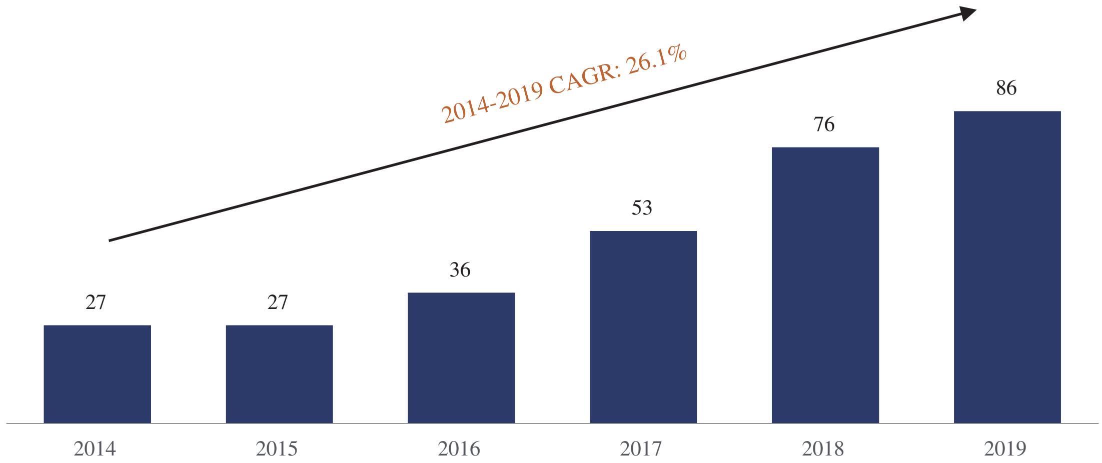
Natural gas supply — LNG imports

Another important supply driver is LNG imports which requires further expansion of receiving capacity. LNG is critical in balancing coastal China's gas supply and demand. More and more downstream gas players are seeking to import LNG directly to diversify their supply source and to improve their bargaining power over NOCs.

Australia has replaced Qatar as the primary source of LNG imports into China, followed by Malaysia, Indonesia and other countries. US supply found its way to China through spot purchases and portfolio suppliers. However, US LNG imports into China almost came to a halt in 2019 due to the escalation of the trade war between the two countries. Following the waivers of import tariffs, Chinese importers resumed imports from the US in April 2020.

According to CEIC, China's natural gas supply from LNG imports rose from 27 billion m3 in 2014 to 86 billion m3 in 2019, representing a CAGR of 26.1%.

China's natural gas supply — LNG imports
(bn m^3)



Source: National Bureau of Statistics.

Development of Natural Gas Infrastructure

The PRC government has invested in expanding natural gas infrastructure including the pipeline network and LNG terminals. This is expected to help secure the natural gas supply and further promote the penetration and application of natural gas.

Development planning for natural gas pipeline transport facilities

According to The 13th Five-Year Plan for Natural Gas Development and The Medium and Long-term Oil and Gas Pipeline Network Planning, the PRC government plans to build 27,000 km pipelines between 2019 and 2020, and 59,000 km pipeline between 2020 — 2025, representing CAGR of 16.2% and 9.0%, respectively.

On July 24, 2020, PipeChina agreed to acquire pipeline and storage facilities valued at US$56 billion from state-owned energy giants including PetroChina, Sinopec and Sinopec Kantons, in return for cash and equity in the pipeline company. The creation of PipeChina is aimed at providing neutral access to its pipeline infrastructure, much of which is currently owned by PetroChina, in a bid to help small and privately-owned companies and encourage investment in the sector to further develop natural gas pipeline transport facilities.

Development planning for LNG receiving facilities

By April 2020, 22 terminals were in operation across 13 coastal provinces, while nine greenfield terminals are under construction and several more are in the pipeline. Historically, the key operators of terminals are China's NOCs along with local government partners and some limited foreign participation. While LNG terminals have been dominated by the NOCs to date, the allocation of import licenses also includes other domestic companies. City gas distributors, power utilities, local energy companies and trucked LNG players are becoming increasingly active in building and proposing LNG receiving terminals in coastal cities. There is a growing preference to import LNG directly and bypass NOCs. These emerging buyers have been progressive in obtaining approvals for new terminals.

Reform of the PRC's Oil and Gas Industry

According to The 13th Five-Year Plan, China will gradually enlarge its efforts in oil and gas reform between 2016 and 2020. Reform will take place throughout the upstream, midstream and downstream oil and gas value chain. Through the reform, the PRC government aims to establish a modern natural gas market system characterized by a complete set of regulations, unified and open market and orderly competition will gradually take shape.

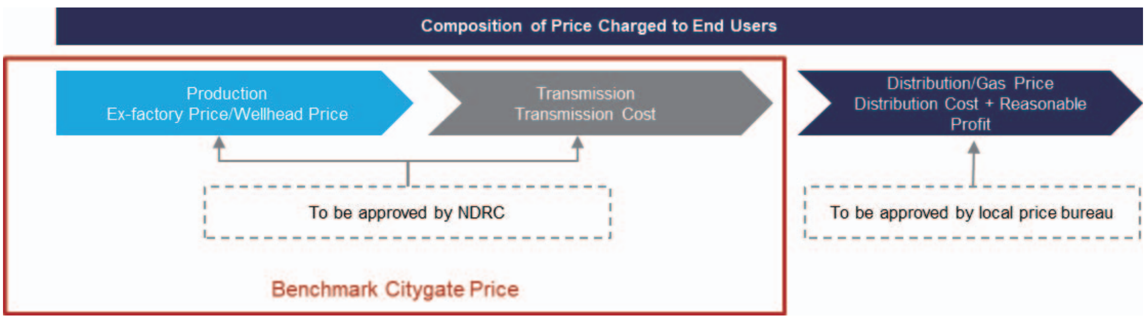
Going forward, China's natural gas market still offers extensive room for development: rationalized market structure, diversified resources supply, complete storage and transportation facilities, unified laws and regulations, orderly competitive modern natural gas sector regime will come into existence.

China's natural gas sector reform regained momentum in 2019. The long-awaited PipeChina was established in December 2019, followed by the US$56 billion asset acquisition in July 2020. The setup of PipeChina is a milestone in China's energy sector reform. PipeChina will potentially promote more open and transparent pipeline access for all players. Over time, the reform could pave the way for China's transition towards a market-based gas price mechanism, enabling direct gas purchase from a wider range of suppliers at competitive prices.

Natural Gas Regulation and Pricing Mechanism in the PRC

The PRC government is carrying out natural gas reform. It is anticipated that China's natural gas price will be further driven by market. With the formation and optimization of the linkage to upper and lower range, the hike of natural gas price will be promptly passed on to end-users which can secure reasonable return on investment for downstream operators.

The following chart illustrates the pricing structure of natural gas in the PRC:



Ex-factory Price and Transmission Cost

City gate price is ex-factory price plus cost of pipeline transmission. The price specified by the PRC government applies. Gas consumption can be divided into residents and non-residents. Gas consumption by non-residents will be subject to the benchmark city-gate price management. Suppliers and buyers may agree on the specific city-gate price based on the benchmark city-gate price, which cannot be more than 20% higher than the benchmark city-gate price.

Distribution Cost and Reasonable Profit

For city gas and compressed natural gas, price adjustments for gas consumption by non-residents are required to be approved by municipal regulators, while price adjustments for gas consumption by residents are determined in hearings except where such adjustments are due to a corresponding change in the city-gate price.

For LNG, its price is market driven depending on demand and supply and is characterized by a high degree of seasonal characteristics. Cost hike can have rapid spill over effects.

Reform of Natural Gas Pricing in the PRC

Through the natural gas price reform, the PRC government aims to reinforce its role in pricing and regulation of transmission and distribution segments. The PRC government implements grade-based and category-based cross-provincial and intra-provincial pipeline transmission costs, urban gas distribution price and detailed administrative measures as per the principle of "permitted cost + reasonable profit" for gas transmission and distribution segments which are inherently prone to monopoly, and puts in place automatic pass-through pricing mechanism. Efforts are being made to increase investment for grid management, control over operation and maintenance cost and information disclosure. The PRC government intends to:

- Enhance local control over intra-province pipeline transmission cost and distribution cost and bring down excessively high intra-province pipeline transmission cost and distribution cost;

- Cut down intermediary segments in gas supply and encourage large users to employ direct supply through pipeline transmission; and

- Regulate and rationalise various charges by natural gas transmission and distribution players and strive to reduce cost of end users.

Integrated Energy Market in the PRC

Energy cost savings, enhanced energy efficiency, and tightening environmental requirements underpin the huge potential in the integrated energy industry in China, as it transitions towards increasing the proportion of clean energy consumption. The integrated energy system combines various clean energy systems into one to provide energy to customers. It is an on-site distributive system highly customized to suit different customer needs. In fact, the type of energy to be integrated is wide, such as natural gas, industrial waste heat, solar energy, geothermal energy and wind power. It also provides broad energy solutions, including gas, electricity, cooling, heating and steam.

Natural gas will be the major fuel used in an integrated energy system led by the stability in energy supply and supportive government policies in distributive gas power. The downstream gas utility players in China will be the main beneficiaries as they will enjoy higher volumes from rising gas consumption and additional revenue from other energy sales.

Advantages of using natural gas as fuel

Natural gas plays an essential role in the energy mix. Firstly, compared to renewable energy which has large fluctuations in energy output in different timeframes, natural gas is a reliable fuel source as it can provide stable energy levels throughout the day as long as there is fuel supply. Secondly, distributive gas power is encouraged by the government and it is an important tool to boost gas consumption in China. Thirdly, there is low risk of downward revision of on-grid tariffs for distributive gas power as it is pegged to gas prices.

Geographic exposure and government policy

Due to concession rights for gas projects, having the right geographic exposure will guarantee that local gas distributors will enjoy higher gas volume sales from the development of integrated energy projects. Since industrial parks have the largest share of demand for integrated energy projects, gas utility players with higher number of industrial parks will have an advantage. Also, the attractiveness of integrated energy in a region also depends on the local government policies such as tariff system, activeness in promotion of direct trading of power with nearby customers, relevant subsidy schemes, and supporting regulations for gas power installation.

Government support and favourable policies

Policy support for Integrated Energy Programs and market-oriented reforms of the Distributed Generation Sector include:

- As at October 2019, there are c.15,000 industrial parks across the country, including 628 national parks, 2,053 provincial parks and c.12,000 regional / county-level parks;

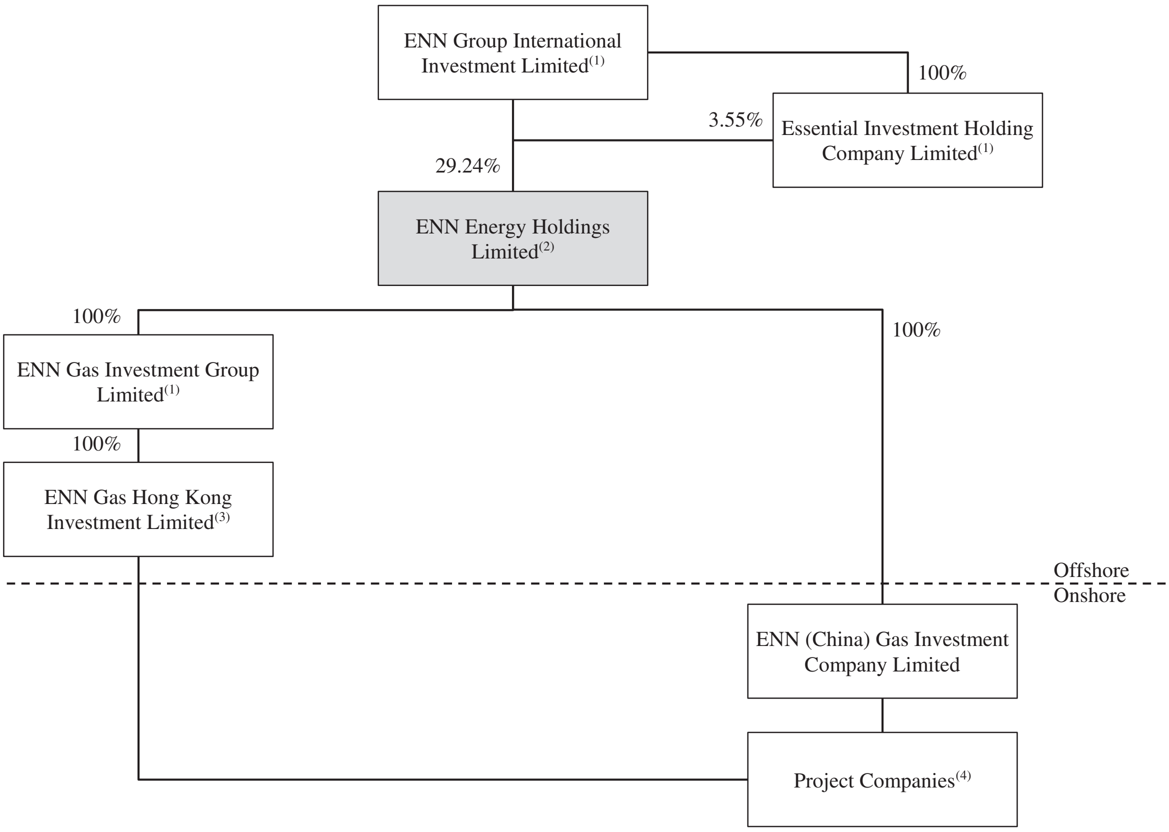
- According to the 2016 Implementation Opinions on Promoting Construction of Trial Projects for Energy Diversification, Integration and Optimization, by 2020, approximately 50% of newly built industrial parks across the country will adopt integrated energy supply system, and 30% of existing industrial parks will conduct transformation towards integrated energy gradient utilization;

- According to the 2017 Notification on Launch of Trial Trading of the Distributed Generation Market, multiple regions are gradually promoting trial trading of the distributed generation market; and

- In some trial regions, distributed generation projects may be constructed using integrated energy, and may negotiate electricity volume and prices with nearby users on a discretional basis to enter into deals through bilateral discussion. In the long run, reform of the distributed generation market will facilitate development of the integrated energy market.

CORPORATE STRUCTURE

The following chart sets forth our simplified corporate structure as of June 30, 2020:



Notes:

(1) Companies incorporated under the laws of the British Virgin Islands.

(2) The Company is incorporated under the laws of the Cayman Islands and listed on the Main Board of the Hong Kong Stock Exchange.

(3) A company incorporated under the laws of Hong Kong.

(4) We control most of the project companies for our 229 operational locations.

OVERVIEW

We are one of the largest privately-owned gas operators and clean energy distributors in China. Our principal business is the sale and distribution of piped gas, LNG and other multi-energy products, and the investment in, and the constructions, operation and management of, gas pipeline infrastructure, vehicle/ship refueling stations and integrated energy projects. We also conduct energy trading business and value added business, including the sales of gas-related appliances and the provision of repair, maintenance and energy management services that assist our customers in optimizing their energy usage.

We commenced operations in 1993 and have since developed into one of the leading privately-owned gas operators in the PRC. As of June 30, 2020, we had a total of 229 operational locations with a total connectable urban population of 107,573,000 in China. We operate our piped gas distribution infrastructure on an exclusive basis , typically for periods ranging from 25 to 30 years, in cities and urban areas located in 22 provinces, municipalities and autonomous regions in China.

We typically apply for and obtain exclusive rights from the local governments in China to distribute piped gas. We may also acquire exclusive rights by entering into joint ventures with existing local piped gas distributors . In addition, we construct and maintain city piped gas networks in locations where we have acquired exclusive rights through the above-mentioned means to supply piped gas. We charge construction and installation fees from property developers, residential customers and C/I customers according to local government's regulations. We receive recurring gas usage charges from connected customers based on the tariffs negotiated and determined within the price cap set by the local governments.

We intend to grow organically by increasing the penetration rates and the number of connected customers for our existing operational locations while continuing to develop new projects and expanding our concessions in China (including, without limitation, to add more operational locations and to acquire certain industrial park projects close to the existing operational locations), with a particular focus on the commercial and industrial zones of emerging cities. In 2017, 2018, 2019 and the six months ended June 30, 2020, the number of city-gas projects under our management increased by 12, 15, 30 and 12, respectively, in China. As the projects in our operational locations continue to mature, we have become less reliant on one-time gas construction and installation fees, while sales of piped gas have increased as a proportion of our revenue, creating a more stable source of recurring revenue.

Apart from our focus on city-gas projects, we adhere to the principle of integrated energy development, explore and utilize the most competitive resources based on different local conditions, and develop integrated energy projects. As of June 30, 2020 we had 108 integrated energy projects in operation, serving customers including airports, railway stations, industrial parks and municipal areas, coupled with 23 integrated energy projects under construction, the sales of integrated energy including steam, cooling, heating, and electricity is expected to reach 34 billion kWh upon full operation over the next few years. With the direction to develop integrated energy business, we will be able to further diversify our business risks and explore more business opportunities for energy trading gas, as well as value added business.

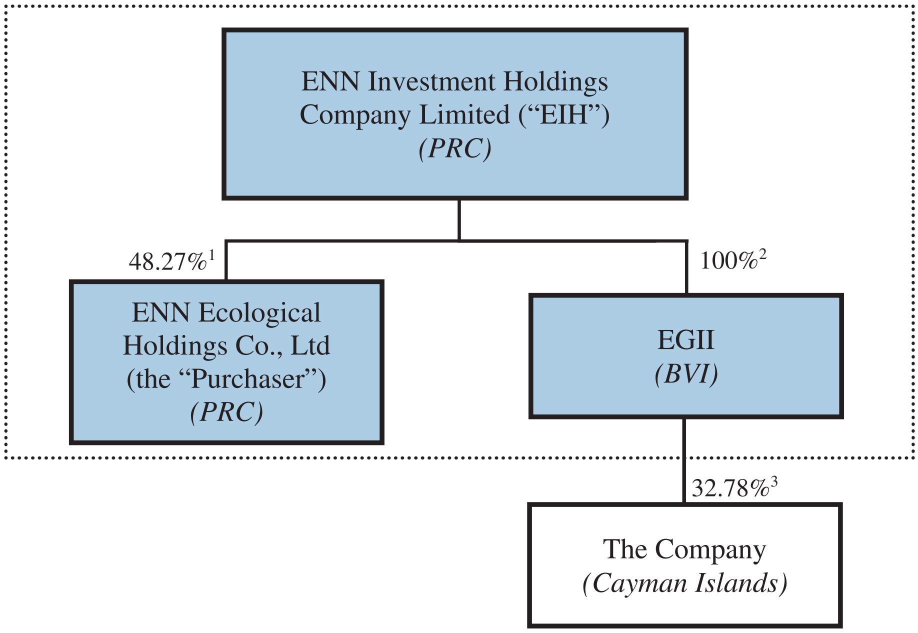
For the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, our revenue was approximately RMB48,269 million, RMB60,698 million, RMB70,183 million, RMB35,344 million and RMB31,543 million, respectively, our total net assets was approximately RMB20,217 million, RMB25,554 million, RMB31,020 million, RMB28,011 million and RMB31,947 million, respectively, and our net profit was approximately RMB3,673 million, RMB3,818 million, RMB6,861 million, RMB3,945 million and RMB3,165 million, respectively.

Our shares were listed on the Growth Enterprise Market on May 10, 2001 and were transferred to the Main Board of the Hong Kong Stock Exchange (stock code: 2688) on June 3, 2002.

RECENT DEVELOPMENTS

The Recent Reorganization

Corporate structure before the reorganization



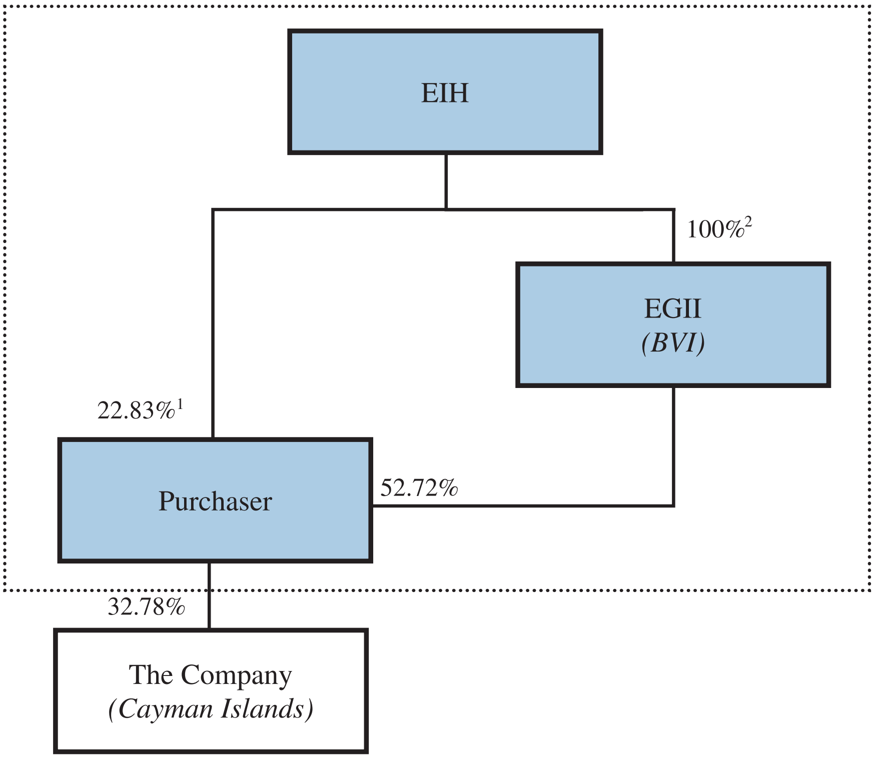
Notes:

1. The total interest in the Purchaser held directly and indirectly by EIH, being Mr. Wang and Ms. Zhao's aggregate interest in the Purchaser (being 48.43%) less Mr. Wang's direct interest in the Purchaser (being 0.16%)

2. Pursuant to the Equity Entrustment Arrangement

3. Being the aggregate shareholding of EGII (being 29.23%) and EGII Subsidiary (3.55%) in the Company as at September 3, 2020

Corporate structure immediately after the reorganization



Notes:

1. The total interest in the Purchaser held directly and indirectly by EIH, being Mr. Wang and Ms. Zhao's aggregate interest in the Purchaser (being 22.90%) less Mr. Wang's direct interest in the Purchaser (being 0.07%), as diluted due to issue of Purchaser Shares as part of the consideration and the placings

2. Pursuant to the Equity Entrustment Arrangement

On August 30, 2019, it was announced that the Company had been informed by EGII, its controlling shareholder, that as part of the restructuring at the controlling shareholder level, it was proposed that EGII and its wholly-owned subsidiary Essential Investment Holding Company Limited would transfer all of the 369,175,534 shares in the Company held by them, representing 32.83% of the Company's total issued share capital to ENN Ecological Holdings Co., Ltd, a company listed on the Shanghai Stock Exchange (600803.SS) (the "Purchaser") (the "Reorganization"). The consideration for the Reorganization will be RMB25,840,270,000 and will be settled by the Purchaser by way of (i) swap of assets (100% equity interest in United Faith Ventures Limited, an indirect wholly-owned subsidiary of the Purchaser which indirectly holds 9.97% equity interest in a listed company in Australia named Santos Limited (STO:ASX), amounting to RMB7,086,310,000), (ii) newly issued shares of the Purchaser (amounting to RMB13,253,960,000) and (iii) cash. Both EGII and the Purchaser are under control of Mr. Wang Yusuo, who is the chairman and an executive director of the Company. The Purchaser was granted a waiver by the Securities and Futures Commission which exempts the Purchaser from the obligation to make a mandatory general offer for shares of the Company.

The Purchaser also expects to conduct a private placement of the newly issued shares of the Purchaser to up to 35 identified investors. The net proceeds of the private placement will be used towards satisfying the cash portion of the consideration for the Reorganization.

The Reorganization is expected to constitute a material asset reorganization of the Purchaser. On April 15, 2020, the Company announced that it had been informed by EGII that the Reorganization has been approved by the China Securities Regulatory Commission. On August 27, 2020, the Company further announced that it had been informed by EGII that the Reorganization has been approved by the Ministry of Commerce of the PRC. As a result, all approvals required for the Reorganization have been obtained. The settlement of the Reorganization is ongoing and the swap of assets mentioned above is expected to be completed before the end of September 2020.

As at September 3, 2020, the 369,175,534 shares in the Company held by EGII and its wholly-owned subsidiary Essential Investment Holding Company Limited represent approximately 32.78% of the total issued share capital of the Company.

Impact of COVID-19 outbreak

The COVID-19 outbreak at the beginning of 2020 has affected many industries across China. Many cities have imposed various protective measures against the outbreak, and many companies have postponed the resumption of work after Chinese New Year, which had a negative impact on manufacturing and commercial activities as well as on the demands of natural gas. As part of the financial measures to support the prevention and control of the epidemic, the NDRC brought forward low-season non-residential city gate price to relieve the mounting pressure from C&I users. However, the Group believes that the impact of the epidemic on China's economy is temporary and China's gas consumption will recover as China gradually resumes normal commercial and industrial activities since March 2020.

In response to the outbreak of COVID-19 earlier this year, the headquarter of the Group and all its member companies have formed an epidemic prevention and control team to coordinate epidemic prevention and control in accordance with national and local government requirements. We have implemented various policies to keep our employees safe and healthy, including regular disinfection at office areas, canteens, apartments and official vehicles; daily monitoring of the physical health of its employees; utilizing iCome platform for daily epidemic report mechanism to analyze the health statuses of employees, tracking health statuses of employees on quarantine and preparing contingency plans in advance to ensure the orderly implementation of epidemic prevention. As a leading enterprise in the public utilities sector, we are determined to ensure the safety of people's livelihood and gas usage during the outbreak, raise awareness of epidemic prevention both internally and externally, and ensure all departments are working closely together to protect frontline employees, providing masks, protective suits, goggles and other supplies to ensure that employees can provide services to customers safely. During the epidemic, most services provided by us have been diverted to mobile application and online platform, which lays a good foundation for us to develop value added business and explore more business opportunities. See also "*Risk Factors — Our business, financial condition and results of operations may be materially and adversely affected by market fluctuations and economic slowdowns in the PRC and the global economy, particularly as a result of the COVID-19 pandemic.*"

On August 31, 2020, we announced our interim report for the six months ended June 30, 2020. We experienced an overall decrease in revenue compared to the first half year in 2019, due primarily to a decrease in the upstream natural gas procuring price, resulting in a decrease in the natural gas sales revenue as we conducted price pass-through to our customers. In addition, our revenue also decreased due to the reduced number of completed connections as COVID-19 has caused delays in the construction and installation progress for new customers. Due to the reduced frequency of face-to-face communications with our existing and potential customers caused by COVID-19, we also experienced a decrease in revenue from our value added business. However, we are able to achieve an overall increase in our gross profit, primarily attributable to our ability to reduce our cost of sales. The negative impact of COVID-19 on our revenue is also partially offset by reduced finance costs as we took advantage of preferential interest rate on anti-epidemic loans, which helped us decrease the average interest rate on our bank borrowings.

COMPETITIVE STRENGTHS

We believe that our position as a leading natural gas distributor in China is largely attributed to the following competitive strengths:

Well-positioned in the fast-growing natural gas market in China driven by China's environmental policies

We were one of the first privately owned companies to invest in the piped gas industry in China. This early market entry allowed us to acquire exclusive rights to develop piped gas distribution projects in desirable, high-growth locations at a relatively low cost. Since the commencement of our operations in 1993, we have expanded our coverage to 229 operational locations in 22 provinces, municipalities and autonomous regions in China with a total connectable urban population of 107,573,000 as of June 30, 2020. This extensive geographical coverage has resulted in significant brand recognition and has provided a stable foundation for us to continue to grow our operations in a cost-effective manner and to take advantage of China's continued economic development, urbanization and improvement in living standards, which is expected to result in further growth in China's downstream natural gas market.

According to the BP Statistical Review of World Energy 2020, natural gas consumption in China has grown from 90.2 billion m^3 per year in 2009 to 307.3 billion m^3 per year in 2019, representing a CAGR of 13.0%. Even with such strong growth, natural gas currently accounted for approximately only 7.8% in 2019 of China's primary energy consumption which is lower than the international average of 24.2%, according to BP Statistical Review of World Energy 2019.

Under the Energy Production and Consumption Revolution Strategy 〈能源生產及消費革命戰略〉 (2016-2030), the PRC government targets to increase the proportion of natural gas in China's total primary energy consumption to 15% by 2030, with its continuous expansion of natural gas infrastructure. In addition, the 2014 Guiding Opinions of Energy Development published by the National Energy Administration ("NEA") of the PRC in January 2014 listed out the targets of energy structure optimization, including reducing the coal consumption and securing natural gas supply. During the first half of 2014, the Chinese government published the "National New-type Urbanization Plan (2014-2020)" and organized the implementation of "Action Plan for the National Energy Development Strategy (2014-2020)," which calls for revolutionary reforms in four aspects, including energy consumption, energy supply, energy-related technologies and energy system, which demonstrate the government's strong determination to optimize China's energy structure.

As part of the national energy reform, the Chinese government continues to open up the upstream gas exploration and midstream infrastructure and liberalize natural gas prices, which could contribute to the availability of gas supply with competitive market prices. PipeChina was established, which is an important step towards a liberalized market and should encourage more participants in the gas supply sector. Our expansion in the natural gas market will be bolstered by the PRC government's stated intention to accelerate a transition to cleaner fossil fuels such as natural gas in order to reduce harmful emissions and to tap domestic gas resources as one of the substitutes for domestic coal, coal gas and imported oil.

Strategic operational locations with strong growth potential

Since 1993, we have engaged in selective expansion of our operational locations in China, while taking into account the strategic value of each individual project to our overall expansion strategy. We enjoy a broad geographical coverage with 229 operational locations in 22 provinces, municipalities and autonomous regions in China as of June 30, 2020, and thus we have a diversified project portfolio that provides us with a competitive edge.

We have targeted locations that are primarily located in cities with established commercial and industry zones (i.e., significant presence of C&I customers and relatively high average income households), having high density urban population or high growth potential. For example, we strategically tapped into various second-tier or third-tier cities in the PRC, where industrial customers have a substantial growing demand for energy consumption. We also sought to promote our presence in key markets where the PRC government introduced measures to encourage the use of natural gas as fossil fuel replacement, for example, in the more polluted regions, such as Beijing-Tianjin-Hebei area, the Yangtze River Delta, Pearl River Delta and the Greater Bay Area. We also have a number of operational locations in northern China with increasing demand for clean energy to improve air quality. Moreover, some projects are strategically located along the natural gas pipelines and near LNG receiving terminals, which facilitates access to supplies of natural gas and reduce the cost of supply, such as our projects located along the West-East Pipelines, which transmit natural gas from western provinces such as Xinjiang and Qinghai to eastern provinces, and Zhong-Wu Pipeline, which connects Hubei Province and Hunan Province to the gas production areas in Sichuan Province and Chongqing Municipality. To better allocate our natural gas resources and ensure steady natural gas supply, we typically cluster our piped gas projects around major natural gas pipelines and have constructed pipelines between our projects to form a cohesive gas supply network. Because we selectively expand into areas where both demand for and supply of natural gas is strong, our projects typically generate positive cash flows quickly, allowing us to maintain our rapid growth.

Upon obtaining a concession right for a city or region, we typically have exclusive rights to supply gas in the designated area for a concession period of 25 to 30 years. Upon the expiration of such concession right, we also have the right of first refusal to extend our franchise period. In the case of joint ventures, we typically have the right of first refusal to purchase the interest of our joint venture partners upon expiration of the joint venture agreement or in the event our joint venture partners wish to exit. Once we have successfully obtained an exclusive right, we face little competition from other piped gas distribution companies in that locality during the concession period. The relatively low penetration rate in residential households across our operational locations also represents significant growth potential for us. As of June 30, 2020, the overall piped gas penetration rate of residential households in our operational locations in China was only 61.2%. Based on our experience, however, piped gas penetration rates of residential households in certain PRC cities can reach levels as high as 80% to 90%. As such, in addition to fulfilling the demand from residential customers, we continue to step up gas connection in commercial and industrial zones in emerging cities. These projects will become one of our major drivers for future growth of natural gas sales.

We believe that continued urbanization, economic development, the expansion of pipeline networks and the increasing diversity of gas supplies, together with the strong support of the PRC government to utilize natural gas and the increased receptiveness of natural gas among consumers as a more cost-effective alternative fuel, will help us achieve increased penetration rates and installed designed daily capacity of C&I customers in our operational locations and expand into new operational locations. Because of our extensive experience, track record for safety and reliable piped gas supply to end-users, we believe we are well-positioned to continue to obtain exclusive rights to supply gas to new operational locations.

Diversified business structure and customer base

In addition to the diversity in terms of our operating locations, we also have a diversified business structure including recently developed and actively growing integrated energy and value added businesses and a diversified customer base including both residential customers from existing and new property developments and C&I customers across various industries.

In terms of customer base, in 2019, 78.9% and 21.1% of our construction and installation fees came from residential customers and C&I customers, respectively. During the same period, residential and C&I customers represented approximately 11.5% and 56.6%, respectively, of the total revenue from our gas sales. We have continued to grow our portfolio of both residential and C&I customers to strengthen our income sources. In 2017, 2018 and 2019, we provided new piped natural gas connections to 2,074,270, 2,301,590 and 2,397,202 residential households, respectively. In addition, the total installed designed daily capacity of C&I customers has grown steadily from 87.9 million m^3 in 2017 to 106.6 million m^3 in 2018 to 124.7 million m^3 in 2019. Benefiting from the PRC government's target to phase out all small coal-fired boilers, we proactively developed coal-to-gas users, with gas sales to newly connected coal-to-gas users amounted to 5.81 million m^3/day in 2019. Moreover, we serve C&I customers from a broad range of industries covering construction materials, commerce, mechanical manufacturing, petrochemicals, food, beverage, textile, pharmaceuticals, as well as heat production, which substantially strengthens our business resilience. Over time, as more consumers convert to gas, we believe the scale of gas sales will expand tremendously.

As we face little competition from other piped gas distribution companies in the operational locations in which we have secured exclusive rights to distribute natural gas, we are able to enjoy steady cash flow from the initial construction and installation fees charged to residential and C&I customers for connection to our piped gas network and subsequent sales of piped gas in these regions. In particular, construction and installation fee income from projects with a low natural gas penetration rate and recurring piped gas sales from projects with a strong C&I customer base provide strong operating cash flows to finance our capital investments and reduce our requirements for external financing. Moreover, as the retail price of piped natural gas for residential and C&I customers is set by local pricing bureaus in that particular region, typically with reference to changes in the upstream or downstream supply cost, we are often able to pass through increases in city-gate gas costs to our residential and C&I customers. We also proactively communicate with customers and pricing bureaus to determine the new pricing scheme and contracts to facilitate the automatic pass-through mechanism to be established. We believe our diversified customer base and comprehensive distribution network will increase our bargaining power with the suppliers and better position ourselves in a liberalized market in the future.

Access to LNG receiving terminal for diversified and competitive gas sources

We are able to access LNG receiving terminals in Zhoushan pursuant to arrangements with our controlling shareholder, which in turn allows us to have access to a variety of gas suppliers in the market. For example, we have signed three long-term LNG import contracts with international suppliers with an annual capacity of 1.44 million tons in total, and these long-term contracts allow us to diversify our gas sources more effectively. In comparison, many of our competitors do not have regular access to such facility in the market. As such, we are better positioned to lower our overall natural gas procurement costs as we are able to secure stable LNG supply from more competitive sources. Such cost savings can in turn improve our gas sales margin, or be passed on to our customers in terms of lowering their energy usage costs, which puts us in a better position to stimulate gas consumption. See also "*Risk Factors — The interests of our controlling shareholders may differ from those of our Company*".

Clear and steady expansion strategy

Our strategy for selecting new operational locations is focused on evaluating several key factors and conducting extensive feasibility studies on the target locations in order to assess the project's potential return on investment to our Company. Our current strategy is to focus on the commercial and industrial zones of emerging cities with huge gas consumption potential. Some of the factors we consider when selecting a new operational location include the size and concentration of the population, the potential of developing value added business, the likely level of construction and installation fees and gas usage charges and whether we can obtain exclusive operational rights and preferential tax rates and governmental fees. This expansion strategy sets clear criteria to help us identify operational locations which have high potential for growth in natural gas consumption.

We are also actively developing diversified businesses to achieve synergistic growth. For instance, our integrated energy projects enable us to explore the customer needs in existing and outside of concession areas. As one of the pioneers in the industry to develop the integrated energy business, we possess first-mover advantage in constructing and operating integrated energy projects for C&I customers.

We provide tailor-made energy systems according to different energy needs of customers. As of June 30, 2020, we had 108 integrated energy projects in operation, serving customers including airport, railway stations, industrial parks and municipal areas, coupled with 23 integrated energy projects were under construction, the sales of integrated energy will reach 34 billion kWh upon full operation over the next few years. Furthermore, we seek to expand our wholesale of gas business to strengthen our gas supply and to enhance our revenue and bargaining power with suppliers. The gas sales volume of the energy trading business reached 7,039 million m^3 in 2019, representing a significant growth of 18.1% year-on-year. Revenue from our value added business also reached RMB1,988 million in 2019, representing a significant growth of 38.8% year-on year. While we continue to expand our operation, we have maintained robust control over our capital expenditure.

Our experience and track record of expansion to 229 operational locations in China has strengthened market recognition of our brand, reinforced our credibility with local governments and end users and provided a strong portfolio of cash flow-generating projects which are attractive to lenders and assist us in negotiating competitive financing terms. Additionally, we manage our risk by maintaining healthy debt-financing structure. As of June 30, 2020, 51.3% of our debt financing was due within one year, 17.9% due after the first year but within the second year, 25.6% due after the second year but within the fifth year and 5.2% due after the fifth year. As of June 30, 2020, we had RMB10,379 million unutilized banking facilities. We believe that our ability to obtain and manage both domestic and international financing gives us a competitive advantage over some other local competitors in China who may only have access to domestic funding.

Proven track record and experienced management team with strong execution capability

We have been operating in the piped gas industry in China for more than 20 years and have a proven track record in business growth, profitability, customer service and safety. We have developed strong working relationships with local governments and upstream natural gas suppliers and have accumulated extensive experience in, and substantial understanding of, the piped gas industry in China.

We have developed a comprehensive energy supply, storage and transmission network, through utilizing roads, waterways, pipelines and reserves, which facilitates the distribution of natural gas and other energy sources within China. Moreover, we established an organizational structure based on customer demand-oriented operating platforms and utilized advanced information technology to allocate resources efficiently and control costs, which enhanced our execution capability. Our distribution and selling expenses and administrative expenses as a percentage of revenue were 6.2%, 5.7% and 5.8% in 2017, 2018 and 2019, respectively. We believe that our in-depth local expertise and market knowledge and experience give us a significant competitive advantage over foreign and local gas operators who seek to expand into the PRC gas distribution businesses.

STRATEGIES

We intend to maintain our position as a leading gas operator in China by focusing on the development of our core business of distributing piped gas while growing our wholesale of gas, integrated energy and value added business to achieve synergistic development.

We intend to achieve our strategic objectives by:

Promoting sustained and rapid growth of the natural gas business

We intend to grow organically by increasing gas penetration rates and gas consumption of customers as well as the number of connected customers for our 229 existing operational locations. We will focus on quality projects acquisition and will seek to expand our customer base by leveraging on our access to upstream resources, integrated energy solutions and related services, with a particular focus on C&I customers.

We also plan to optimize the scale and coverage of our gas supply structure by leveraging on the opportunities arising from the establishment of PipeChina, and strengthening the cooperation with various upstream suppliers to diversify and enhance natural gas supply capacity, ensure flexible procurement of unconventional gas sources while reducing procurement costs. The establishment of PipeChina has contributed in liberalizing the midstream gas transmission infrastructure, which was previously solely controlled by three major corporations, and has allowed third parties to gain access to pipeline and LNG terminal assets. This has in turn encouraged direct gas purchases to take place between downstream gas distributors such as ourselves and other upstream gas producers. In addition, we will enhance our distribution capability via deepened cooperation with PipeChina to enhance our pipeline capacity and facilitate connection of gas resources with our customers. We endeavor to innovate our distribution model based on upstream supply and diversified customer needs to better align the supply with demand in order to make full use of resources.

As of June 30, 2020, the overall piped gas penetration rate of residential households in our 229 operational locations in China was approximately 61.2%. We seek to increase piped gas penetration rates of residential households to over 80% in line with penetration rates achieved in some of our more mature projects in China. In 2017, 2018 and 2019, the number of city-gas projects under our management increased by 12, 15 and 30, respectively, coupled with the urbanization process in China, which, after development, had added a connectable urban population of approximately 7.27 million, 9.88 million and 9.31 million, respectively.

Capitalizing the value of our pipeline assets

We have been focusing on improving the operational efficiency of our pipeline assets through a variety of methods. For instance, we carry out assessment and management to ensure the safety of the operations and extend the service life of the pipelines. We also seek to optimize our measurement system by improving the quality standards, operation and maintenance standards of our facilities to effectively reduce transmission loss.

In addition, we try to innovate our pipeline operation model by leveraging data intelligence technology to operate pipelines, which enhances the economics and efficiency of gas distribution and the natural gas market reform and enables us to maintain a customer-oriented approach in response to changes in customer needs. We also plan to improve the interconnection of infrastructure and enhance the stability of gas supply through internal collaboration and external alliances and endeavor to optimize city-gas pipeline network to improve the layout and dispatching efficiency of our network.

Active development of our value added business

We have been developing our value added business to focus on the needs of residential and C&I customers by providing a variety of products and services such as safe home, smart kitchen, one-stop heating and safety and security system. We will continue to explore opportunities to create new business models, such as producing packaged modular products and services to customers based on their needs. We also strive to foster and establish a business ecosystem such that internally, there exists a market-based incentive mechanism to incentivize employees to continuously stimulate products and services upgrade while externally, we continue to strengthen cooperation with third-party service teams and create new business alliances to engage more business partners within the ecosystem.

Steady expansion of our integrated energy business

We are committed to developing our integrated energy business to become a high-quality integrated energy service provider in the market. For example, we have been proactively developing industrial parks integrated energy projects, especially those with high load density, better load matching and significant development potential. We are also actively involved in public infrastructure integrated energy projects, targeting those with diversified energy demand, higher consumption volume and duration. Currently, we also focus on industries such as textiles and chemicals and endeavor to establish industry-specific integrated energy solutions which can be applied to other customers efficiently.

Capitalizing on the favorable government policies and the reform of the national electricity industry and leveraging our customer base in the city-gas projects, we plan to develop more integrated energy projects with a focus on commercial and industrial customers. As of June 30, 2020, we had 108 integrated energy projects in operation, serving customers including airports, railway stations, industrial parks and municipal areas, and 23 integrated energy projects under construction. Through our integrated energy business, we provide power users with power management services such as power facility operation and maintenance, power quality control and energy efficiency optimization to improve energy stability and reduce costs. We provide energy facility operation and maintenance services to energy users to enhance energy efficiency and reduce overall costs. In addition, we also provide photovoltaic project investors with one-stop service such as project development, operation and maintenance to maximize returns while reducing costs.

HIGHLIGHTS OF OUR OPERATIONS IN THE PRC

	Year ended December 31			Six months ended June 30	
	2017	2018	2019	2019	2020
Highlights					
Number of city gas projects	172	187	217	201	229
Connectable urban population (thousand)	84,693	94,569	103,880	99,950	107,573
New natural gas connections made during the year:					
— residential households (thousand)	2,074	2,302	2,397	1,287	1,025
— C&I customers (sites)	23,200	29,226	27,656	12,110	8,326
— installed designed daily capacity for C&I customers (thousand m^3)	16,718	18,652	18,156	8,638	6,559
Accumulated number of customers:					
— residential households (thousand)	16,221	18,523	20,920	19,787	21,945
— C&I customers (sites)	91,879	121,105	148,761	133,209	157,087
— installed designed daily capacity for C&I customers (thousand m^3)	87,901	106,553	124,709	115,178	131,268
Piped gas penetration rate (%)	57.5	58.8	60.4	59.4	61.2
Retail gas sales volume (million m^3)	14,475	17,370	19,924	9,769	10,163
Wholesale of gas volume (million m^3)	5,141	5,958	7,039	3,435	3,669
Number of natural gas processing stations	173	185	197	191	199
Combined daily capacity of natural gas processing stations (thousand m^3)	104,370	123,640	147,802	139,360	154,017
Total length of existing intermediate and main pipelines (km)	39,146	46,397	54,344	49,444	56,902
Accumulated number of integrated energy projects in operation	31	62	98	82	108
Integrated energy projects under construction	30	35	22	37	23
Sales volume of integrated energy (million kWh)	1,100	2,886	6,847	1,952	4,806

AREAS OF OPERATIONS

We have obtained exclusive rights from local governments to supply piped gas to substantially all of our existing operational locations including, but not limited to, cities and urban areas in Anhui, Guangdong, Guangxi, Hebei, Henan, Hunan, Sichuan, Beijing Municipality, Fujian, Gansu, Jiangxi, Yunnan, Inner Mongolia, Heilongjiang, Jiangsu, Shanghai, Tianjin, Shaanxi, Shanxi, Shandong, Zhejiang and Liaoning.

The table and the map below shows the locations in which we have exclusive operation rights in the provision of natural gas in the PRC as of December 31, 2019 and their respective contribution percentage of gas sales volume for the year ended December 31, 2019.

	Natural gas sales volume for the year ended December 31, 2019
	% of total
Hebei	14.5%
Shandong	13.2%
Zhejiang	11.7%
Guangdong	11.2%
Fujian	10.8%
Jiangsu	9.4%
Hunan	8.7%
Henan	7.6%
Anhui	7.3%
Other provinces	5.6%
	100.00%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OPERATIONAL LOCATIONS IN CHINA
West-to-East Pipeline I
West-to-East Pipeline II
West-to-East Pipeline III
Shaanxi-Beijing Pipeline I
Shaanxi-Beijing Pipeline II
Shaanxi-Beijing Pipeline III
Shaanxi-Beijing Pipeline IV
Hebei-Nanjing Pipeline
Zhong-Wu Pipeline
Yong-Tang-Qin Pipeline
Qin-Shen Pipeline
Sichuan-East Pipeline
Tai-Qing-Wei Pipeline
Hangzhou-Jiaxing Pipeline
Hu-Hang-Yong Pipeline
Yong-Tai-Wen Pipeline
China-Myanmar Pipeline
China-Russia East Pipeline (under construction)
Xinjiang-Guangdong-Zhejiang Pipeline (under construction)
Gas Project Managed by ENN
LNG Import Terminal
National Storage Tanks
Xinjiang Autonomous Region
Hutubi
Anhui (25 projects)
Bengbu 1,480,000
Bozhou 785,000
Chaohu 765,000
Chuzhou 915,000
Dingyuan County 13,000
Feidong 255,000
Fengyang 156,000
Guzhen 115,000
Jieshou Industrial Zone –
Liuan 279,000
Luan 1,060,000
Quanjiao 368,000
Suchu Modern Industry Park –
Suzhou Economic Development Zone 135,000
Tianchang 400,000
Bowu Modern Industrial Park –
Xuancheng Xuanzhou 368,000
Xuanzhou City 650,000
Xuancheng Economic & Technological Development Zone –
Jingxian 70,000
Langxi 210,000
Xinhang & Shijie 30,000
Ningguo (Port) Ecological Industrial Park –
Bengbu Mohekou Industrial Park –
Yingshang Industrial Park –
Guangdong (25 projects)
Dongguan 7,750,000
Dongguan Dongkeng Town 105,000
Dongyuan 109,000
Fengkai 92,000
Guangning 85,000
Heyuan 342,000
Huadu 957,000
Huaiji 138,000
Leizhou 368,000
Lianjiang 335,000
Lianping County 255,000
Lianzhou 178,000
Luoding 312,000
Panyu Zone, Guangzhou City 1,880,000
Qingyuan Minzu Industrial Park –
Shantou 1,720,000
Shenzhen Bao'an (Longchuan) Industrial Park –
Sihui 495,000
Wuchuan 315,000
Xinyi 318,000
Yangxi County 122,000
Yunan 79,000
Zhanjiang 1,280,000
Zhaoqing 1,120,000
Zhaoqing Development Zone 165,000
Guangxi (7 projects)
Beihai Tieshangang Industrial Park –
Guigang 618,000
Guilin 1,170,000
Guiping Industrial Park, Guigang City –
Wuzhou Imported Renewable Resources Processing Park –
China-asean Fusui Forestry Circular Economy Park –
Yangshuo 60,000
Hebei (31 projects)
Baoding 1,850,000
Weichang Economic Development Zone –
Dingxing County 280,000
Dingzhou 505,000
Gaocheng 525,000
Jingxing 369,000
Langfang 1,450,000
Lingshou 101,000
Luanxian 122,000
Luquan 335,000
Luquan Yian Town 11,000
Xingtai Ningjin 48,000
Qingyuan County Western Industrial Zone B –
Rongcheng 145,000
Shenze 49,000
Shijiazhuang 4,825,000
Shijiazhuang Airport Industrial Park –
Jinzhou Economic Development Zone –
Yutian County 155,000
Wangdu Economic Development Zone –
Xinglonggong 30,000
Wenan Industrial Park –
Wuji 90,000
Xingtang Development Zone –
Xinji 265,000
Zhengding New Zone, Shijiazhuang City 53,000
Xige, Xiaoji, Daxinzhuang, Daqigezhuang & Qianying 170,000
Cangzhou Mengcun 230,000
Cangzhou Xian County 180,000
Cangzhou Nandagang Administration Area –
Xingtai Lincheng 230,000
Henan (14 projects)
Gongyi Private Technology and Innovation Park –
Kaifeng 1,425,000
Luoyang 2,720,000
Luanchuan –
Ruyang County 158,000
Ruzhou 381,000
Shangqiu 3,210,000
Weihui City (Tangzhuang Town) Industrial Agglomeration Zone 33,000
Xinan 168,000
Xinan Wanshan Lake Industrial Park –
Xinxiang 1,620,000
Yexian 100,000
Zhayuan, Xuedian & Ziba 110,000
Yichuan 115,000
Hunan (15 projects)
Changsha 6,186,000
Changsha County 375,000
Chenzhou Suxian Industrial Zone –
Huaihua 505,000
Liling 238,000
Liuyang Industrial Park –
Ningxiang 472,000
North-western Liuyang 115,000
Wangcheng 182,000
Xiangtan 1,325,000
Yanling County 85,000
Yongxing County 32,000
Yongzhou 755,000
Zhuzhou 1,820,000
Zhuzhou County 288,000
Sichuan (2 projects)
Shiyangqiao –
Liangshan Prefecture 675,000
Beijing Municipality (1 project)
Pinggu 235,000
Fujian (17 projects)
Anxi 127,000
Dehua 118,000
Huian 205,000
Jinjiang 678,000
Jiangle Economic Development Zone, Jiangle Industrial Park –
Longyan Development Zone 198,000
Mingxi Economic Development Zone –
Nanan 408,000
Ningde 1,120,000
Ningde Xiapu Yacheng Dongyang Industrial Park –
Quangang 328,000
Quanzhou 1,450,000
Quanzhou Taiwanese Investment Zone –
Sanming Taiwanese Investment Zone Jikou Emerging Industrial Park –
Shishi 215,000
Zhangzhou Nanjing High-tech Industrial Park –
Yongchun 172,000
Shan224
Gansu Province
Gansu (1 project)
Shuping Industrial Park –
Jiangxi (4 projects)
Jiujiang Economic & Technological Development Zone –
Pingxiang Xiangdong District 156,000
Shangrao Economic Development Zone 158,000
Xiajiang 180,000
Xiangguosi
Sichuan Province
Yunnan Province
Yunnan (3 projects)
Kunming City Hi-tech Zone 53,000
Xuanwei 428,000
Wenshan 468,000

Inner Mongolia (1 project)	
Tongliao	865,000

Heilongjiang (2 projects)	
Suihua	500,000
Daqing High-tech Zone	–

Jiangsu (16 projects)	
Dongtai Coastal Economic Zone	–
Funing	–
Gaoyou	385,000
Guannan Development Zone	161,000
Haian	585,000
Hongze	395,000
Huaian	2,190,000
Lianyungang	1,420,000
Lianyungang Xuyu New Zone	–
Suining Suburban	–
Taixing	565,000
Wujin	1,490,000
Xinghua	631,000
Yancheng	1,575,000
Southern Area of Sheyang Township	270,000
Yancheng Environment Protection Industrial Park	–

Shandong (25 projects)	
Binzhou Zhanhua Economic Development Zone	–
Changle County	246,000
Changle Economic Development Zone	–
Changqing Zone, Jinan City	636,000
Chengyang	1,185,000
Guangrao Huaguan	10,000
Huangdao	1,355,000
Jiaonan	721,000
Jiaozhou	689,000
Laiyang	372,000
Liaocheng	1,078,000
Qingdao Sino-German Ecopark	–
Rizhao	1,010,000
Xintai City Development Zone	–
Yantai	2,750,000
Zhaoyuan	30,000
Zhucheng	658,000
Shouguang	230,000
Ningyang, Tai'an	350,000
Laiwu	330,000
Liulou, Changxingji, Sanchunji, Shawo & Jiaoyuan, Dongming	300,000
Linyi Luozhuang	45,000
Rizhao Military-civilian Integration Industrial Park	–
Zibo Gaoqing Chemical Industrial Park	–
Zouping	292,000

Zhejiang (17 projects)	
Haining	587,000
Haiyan	116,000
Huangyan	651,000
Huzhou	765,000
Jinhua	395,000
Lanxi	168,000
Longwan	369,000
Longyou	136,000
Nanxun	512,000
Ningbo Daxie Development Zone	–
Ningbo	862,000
Quzhou	415,000
Wenzhou	562,000
Xiaoshan	1,025,000
Yongkang	245,000
Zhoushan	1,170,000
Zhoushan Green	–

Shanghai (2 projects)	
Fengjing, Jinshan District	20,000
Yueyang Industrial Park, Baoshan District	–

Tianjin (1 project)	
Wuqing Dawanggu	25,000

Shaanxi (1 project)	
Chengcheng	90,000

Shanxi (1 project)	
Huairen	430,000

Liaoning (6 projects)	
Dayou Linhai Economic Zone, Linghai City	69,000
Huludao	1,580,000
Panjing Chemical Enterprises Zone	–
Xingcheng	139,000
Panshan	–
Yingkou Industrial Park	–

Total Connectable Population
103,880,000

Total Number of Projects
217

OUR BUSINESS ACTIVITIES IN THE PRC

Our principal businesses include the sale and distribution of piped gas, and investment in, and the construction, operation and management of, gas pipeline infrastructure, integrated energy projects and vehicle and ship refuelling stations, liquefied natural gas and other multi-energy products, wholesale gas business and provision of other services in relation to energy supply in the PRC.

Integrated Energy Business

Our mission is "Building a Modern Energy System, Co-building a Better Ecology." We adhered to the principle of integrated energy development, exploring and utilizing competitive resources based on different local conditions to develop integrated energy projects. In order to meet customers' needs, we leverage our technological know-how on clean energy and transportation resources accumulated over a long time and develop the most efficient tailor-made energy solutions for clients. We reduce the harm to the environment caused by economic development by promoting clean energy and conducting energy saving and emission reduction projects. In 2019, our integrated energy sales, including electricity, heating, cooling and steam, amounted to 6,847 million kWh, representing an increase of 137.2% as compared to that in 2018. Our integrated energy solutions not only brought sustainable energy profit to our Group, but also ensured efficient use of energy for our clients. Such consumption of integrated energy in 2019 replaced energy consumption from burning of coal in an amount equivalent to the burning of approximately 227,437 tons of standard coal which would have emitted approximately 1,089,050 tons of carbon dioxide.

We believe our integrated energy business will develop rapidly when more quality projects such as (a) airports and hospitals which have stable energy consumption throughout the year and (b) provincial or national industry parks which have relatively large energy consumption scale and diversified customer base, are put into operation, laying a good foundation for promoting our transformation and upgrading into an integrated energy service provider.

Retail Gas Sales Business

In 1993, we launched our piped gas business in Langfang, Hebei Province. In 2000, we expanded the business to Miyun (Beijing), Liaocheng (Shandong Province) and Huludao (Liaoning Province). As of December 31, 2019, we have 217 operational locations across 22 provinces, municipalities or autonomous regions in China, supplying piped gas to 20,919,935 residential households and 148,761 C&I customers in China. Natural gas sold to C&I customers, residential customers and gas refueling stations increased by 14.7% from 2018 to 2019 to 19,924 million m^3, increasing revenue by 16.9% to RMB40,049 million. Currently, our piped gas business is our most important source of revenue and profit. We intend to grow organically by increasing the penetration rate and the number of connected customers for our existing operational locations while continuing to develop new projects.

Our gas pipeline infrastructure comprises intermediate pipelines, natural gas processing stations, main pipelines, branch pipelines and other ancillary facilities such as gas storage tanks and pressure-regulating stations. The expansion of our gas pipeline infrastructure, from the identification of a project to the supply of gas to end users, is described as follows:

Identifying and securing new operational locations

Preliminary review and feasibility studies

We select new operational locations after conducting preliminary evaluations and extensive feasibility studies on the target locations and after assessing the project's return on investment to our Group.

Some of the factors we consider include:

- size and concentration of population;

- current gas penetration rate;
- extent and concentration of industrial and commercial activities;
- likely level of construction and installation fees and gas usage charges;
- extent of the local government's commitment to environmental protection, environmental policies in place, and the local population's awareness of environmental issues;
- whether exclusive operational rights and preferential treatment on tax and governmental fees will be obtained;
- types of gas supply (piped gas, CNG or LNG) and methods of delivery, whether by way of intermediate pipeline (if the gas source or long-distance pipeline is located within a short distance), by CNG trucks (if the gas source or long-distance pipeline is located within a middle distance) or by LNG trucks (if the gas source or long-distance pipeline is located within a long distance);
- economic statistics of the relevant locations; and
- in the case of acquisition of existing gas projects, the cost of acquisition, quality of assets and/or business to be acquired, extent of liabilities of the business and whether we are able to resolve problems perceived or encountered in respect of the relevant existing gas projects.

Based on the findings of feasibility studies, which cover the above-mentioned factors, our business development team decides whether to make a recommendation to the management for approval to proceed with discussions and negotiations on the new project.

Securing a new operational location

A detailed gas project proposal would be prepared and submitted to the local government and commence negotiations on major issues such as the granting of exclusive rights or rights of first refusal to supply gas to that location, proposed construction and installation fees and gas usage charges and whether any tax and other concessions or favorable policies would be granted by the local government. Concurrently, we may also commence negotiations with a potential local joint venture partner who is familiar with the local environment. In instances where we take over an existing gas project (whether acquiring assets or a business), we commence negotiations with the owner(s) of the gas project. A state-owned gas project must be acquired through a public tender process.

We attempt to reach an agreement with the local government on the proposed construction and installation fees and gas usage charges, but such fees and charges are subject to final approval of the local state pricing bureau. After the formation of a project company, we negotiate gas purchase agreements with suppliers.

Investment in the construction of gas pipeline infrastructure

Design stage

We appoint a government-approved design institute to carry out the design of the gas pipeline infrastructure for a gas project (which includes the intermediate pipelines, natural gas processing stations, main pipelines and other ancillary facilities such as gas storage tanks and pressure-regulating stations) in accordance with our technical requirements and taking into account the size and needs of the local population, the state and developmental needs of the economy, the utilization of energy resources and environmental conditions. The master design is subject to approval by experts appointed by the local city construction department. The design stage typically takes two to three months. To better allocate our natural gas resources and ensure steady natural gas supply, we typically cluster our piped gas projects around major natural gas pipelines. During the design stage, we also account for building pipelines between certain projects in order to allow us to better control gas supply and working capital.

Construction stage

We generally enter into turnkey contracts with contractors for construction, installation and maintenance of gas pipe. We generally provide progress payments during the course of construction, installation or maintenance work with the remainder to be paid upon completion of a project. In the case of delay or failure on the part of the contractor to complete the project, we are entitled to claims for damages or, in some instances, rescission of the contract. Upon entering such contracts, we will commence the sourcing of raw materials such as pipes, gas regulating equipment and machinery. We have strict quality control procedures for the sourcing of supplies for construction purposes.

Our internal engineers and independent external inspectors monitor the entire construction process to ensure that each stage of construction meets our quality and safety standards and the relevant legal requirements. In particular, we have set up a construction visualization platform, which enables us to better control the progress and quality of construction.

Although gas pipeline infrastructure is designed to cover the entire operational location, our construction program generally focuses on early gas delivery to areas of concentrated customer demand within an operational location so that gas supply can commence as soon as the essential gas pipeline infrastructure and facilities (such as the natural gas processing stations and the intermediate pipelines) are completed. Construction work in an initial target area will gradually be extended to cover the whole operational location.

Connection to gas users

Once we enter into a gas supply contract with a customer, we begin the design and construction of the branch pipelines and customer pipelines. Unless complex designs are involved, the designs of branch pipelines and customer pipelines are normally prepared by us, reviewed by a government-approved design institute, and carried out by external contractors. This process takes about one to three months.

Wholesale Gas Business

We conduct wholesale of gas business by sales of natural gas on a wholesale basis. We believe our wholesale gas business features an asset-light model with manageable business risks, as we are able to allocate gas sources to the demand side through the efficient use of our advanced dispatch system, logistics fleet and upstream resources. We assess the gas demand, credibility of customers and draw up trade contracts to ensure the timely collection of receivables. In 2019, our gas sales volume of the wholesale of gas business reached 7,039 million m^3, representing a significant increase from 2018 by 18.1%.

We have developed one of the first e-commerce websites in the PRC, “greatgas.cn,” featuring online and offline multi—dimensional cooperation with source gas suppliers, which facilitate the communication between suppliers and customers. The “greatgas.cn” website had 1630 certified users and recorded approximately 5,007 registered users in 33 provinces and cities in the PRC as of December 31, 2019. In 2015, we acquired a 7% equity interest in the Shanghai Petroleum and Natural Gas Exchange, which commenced operation in July 2015 by providing a natural gas trading, settlement and clearing platform and an online service system to realize market-based operation through spot trading of natural gas. In January 2017, the Company also acquired a 7% equity interest in Chongqing Petroleum and Natural Gas Exchange. The Chongqing Petroleum and Natural Gas Exchange aims at building an oil and gas spot trading market leveraging the diversified gas sources and well-developed pipeline network facilities in Sichuan and Chongqing with a focus on piped gas and natural gas chemical products as major products. It is the second national bulk energy commodity trading platform following the Shanghai Petroleum and Natural Gas Exchange, in which the Company currently owns 7% equity interest.

Value Added Business

We have "customer-centricity" business philosophy and have been developing our value added business to focus on customers' needs while exploring new business opportunities. We have provided our customers with energy experts to evaluate the pain points faced by them and provide them with energy-saving technologies and retrofitting services, so as to maintain customers' market competitiveness by enhancing their energy consumption and production efficiency. We also take advantage of our brand influence and online-offline service platforms to connect with end customers and promote gas appliances such as cookers, space heaters, water heaters, kitchen ventilators and disinfection cabinets. We also launched a variety of products such as smart gas meters, alarms and automatic shut-off valves and provide customers repair and maintenance services to the gas appliance facilities we have supplied.

CUSTOMER BASE

Our customers can be classified into three broad categories: (i) residential customers, (ii) C&I customers, and (iii) vehicle customers. We have adopted different marketing strategies for different customer groups. The following table provides a breakdown of our customer base by number of customers and volume of gas sales for the periods indicated:

	As of or for the year ended December 31			As of and for the six months ended June 30
	2017	2018	2019	2020
Customer base				
Number of residential customers (thousand)	16,221	18,523	20,920	21,945
Unit of natural gas sold to residential customers (million m^3)	2,148	2,885	3,345	2,139
Number of C&I customers (sites)	91,879	121,105	148,761	157,087
Unit of natural sales to C&I customers (million m^3)	10,931	13,225	15,334	7,613
Total installed designed daily capacity for C&I customers (thousand m^3)	87,901	106,553	124,709	131,268
Unit of natural gas sold to vehicles (million m^3)	1,396	1,260	1,245	412
Wholesale of gas volume (million m^3)	5,141	5,958	7,039	3,669

Residential Customers

Gas is primarily used by residential owners for cooking and water and space heating. We focus on marketing to property developers, government departments and organizations and SOEs as these entities enter into master supply contracts with us for the connection of gas to all the units within a residential development (including new or existing, owned by such entities or their employees). These entities are responsible for, or coordinate, the advance payment of construction and installation fees to us, while gas usage charges are paid by the individual users. Due to PRC government policies promoting energy conservation and emission reductions and increased urbanization in China, these policies have presented us with enormous opportunities for developing urban residential market. We also continued to work with local governments on implementing their development initiatives to assist the local governments in achieving the replacement of scattered coals for the prevention and control of air pollution.

During the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, we completed piped natural gas connections to approximately 2,074,270, 2,301,590, 2,397,202, 1,286,538 and 1,025,021 residential households, respectively. The average construction and installation fee in 2019 was RMB2,539 per household, maintaining at a stable level over the past few years. As of December 31, 2019, we had connected piped gas to a total of 20.9 million residential customers in China cumulatively, raising the average piped gas penetration rate to 60.4%, compared with 58.8% as of December 31, 2018.

As of December 31, 2019, we cumulatively developed 1.82 million natural gas space heating users and most projects had established residential tier-pricing mechanism. Benefiting from the increased gas consumption by newly developed residential customers and natural gas space heating users, the volume of natural gas sold to residential users increased by 15.9% to 3,345 million m^3, accounting for 16.8% of retail gas sales volume in 2019.

Commercial and Industrial Customers

Commercial customers use natural gas primarily for air conditioning, water and space heating and cooking purposes. These customers include, among others, owners of hotels, restaurants, office buildings, shopping malls, hospitals, educational establishments, sports and leisure facilities and exhibition halls. Natural gas has a wide variety of applications for industrial customers, such as fuelling industrial boilers, furnaces, ovens, incinerators, foundries and steamers as well as water and space heating in staff canteens and dormitories within the industrial customers' premises. We enter into supply contracts with these customers for the connection of gas to their premises, and both construction and installation fees (payable in advance by instalments based on the percentage of completion of the pipeline construction work) and gas usage charges (payable monthly in arrears) are borne by such customers.

Although the existing number of C&I customers is less than the number of residential customers, these customers are more important to us as they are much higher volume gas users than residential customers and their demand for natural gas tends to be less seasonal. As most of our projects are located in key areas of air pollution prevention and control where local governments strictly implement environmental protection policies, we will continue to take advantage of the opportunities arising from air pollution prevent and control to tap the potential of the C&I market and actively promote the replacement of coal-fired boilers for C&I users. In addition, we will also leverage on the benefits from us owning multiple industrial park concessions and opportunities arising from the relocation of industrial facilities to industrial parks.

During the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, the accumulated installed designed daily capacity for C&I customers were 87.9 million m^3, 106.6 million m^3, 124.7 million m^3, 115.1 million m^3 and 131.3 million m^3, respectively.

SALES

For the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, retail gas sales accounted for approximately 56.0%, 56.5%, 57.1%, 57.5% and 57.7% of our total revenue, respectively; and construction and installation accounted for approximately 12.3%, 9.7%, 9.9%, 10.3% and 8.5% of our total revenue, respectively. For the same periods, value added business accounted for approximately 6.4%, 2.4%, 2.8%, 2.9% and 2.1% of our total revenue, respectively; wholesale of gas accounted for approximately 24.6%, 29.8%, 26.3%, 26.4% and 25.1% of our total revenue, respectively; and sales of integrated energy and services accounted for approximated 0.7%, 1.6%, 3.9%, 2.9% and 6.6% of our total revenue, respectively.

The following tables set forth for the periods indicated, the performance highlights as well as the contribution to our revenue, from our principal business activities:

	Year ended December 31						Six months ended June 30			
	2017		2018		2019		2019		2020	
	RMB million	*% of total*	*RMB million*	*% of total*	*RMB million*	*% of total*	*RMB million*	*% of total*	*RMB million*	*% of total*
Revenue										
Retail gas sales business	27,050	56.0%	34,272	56.5%	40,049	57.1%	20,332	57.5%	18,191	57.7%
Sales of integrated energy	294	0.7%	1,005	1.6%	2,749	3.9%	1,019	2.9%	2,101	6.6%
Wholesale of gas	11,878	24.6%	18,107	29.8%	18,465	26.3%	9,330	26.4%	7,919	25.1%
Value added business	3,093	6.4%	1,432	2.4%	1,988	2.8%	1,037	2.9%	663	2.1%
Construction and installation	5,954	12.3%	5,882	9.7%	6,932	9.9%	3,626	10.3%	2,669	8.5%
	48,269	100.0%	60,698	100.0%	70,183	100.0%	35,344	100.0%	31,543	100.0%

Retail Gas Sales Business

Retail gas sales business constituted our most significant source of revenue for the years ended December 31, 2017, 2018 and 2019 and six months ended June 30, 2019 and 2020. During 2019, we sold 3,345 million m^3 of natural gas to residential households and 15,334 million m^3 to C&I customers. For the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, the revenue derived from sales to C&I customers made up 52.9%, 56.5%, 56.6%, 55.4% and 55.8%, respectively of the total revenue of gas sales. Gas usage charges are based on actual usage on a per m^3 basis. The gas usage charges per m^3 vary between operational locations, and the payment mechanism between different categories of customers is different.

Residential customers of our project companies typically purchase gas units in cash at our point-of-sales with details of the prepaid gas units stored electronically in a stored value card. The stored value card is inserted into a stored value card gas meter installed at the users' premises to activate the gas supply. Units of gas used are deducted from the stored value card. When the level of prepaid gas units drops to a certain level (currently pre-set at 3 m^3), the gas meter will produce a sound signal to remind the customer to replenish the value stored in the stored value card. The stored value prepaid card system minimizes payment default risks with respect to gas sales to residential customers and save huge administrative expenses, thus enhancing our cash flow.

For commercial and industrial customers, smart gas meters are installed at the users' premises and meter readings are automatically transferred to our smart operation platform every day. Weekly, bi-weekly or monthly bills based on the prior period's actual usage are then sent to customers. In general, settlements are received by us about one week from the date of billing. In the event a customer defaults in the payment of gas usage charges, the customer's gas supply will generally be suspended within one month of billing. In respect of commercial and industrial users with large gas usage volume, we may offer discounts on the approved charges, the extent of which will be subject to negotiation and agreement.

Construction and Installation Fees

The level of construction and installation fees varies among operational locations and are approved by the relevant local state pricing bureau. An individual residential customer is required to pay the construction and installation fee in full prior to commencement of connection work. Construction and installation fees are generally paid by the real estate developers constructing a new residential development. In respect of new residential developments, construction and installation fees are collected in advance by instalments based on the percentage-of-completion of the pipeline construction work. We generally provide property developers with a credit period of 60 to 90 days after construction is completed irrespective of whether the units are sold or occupied. However, the actual supply of gas will only commence after all construction and installation fees are settled. In the event supply contracts are entered into for the connection of gas to a large number of households within a residential development (e.g. staff quarters of SOEs or governmental organizations), we may offer discounts of the approved fee payable, the extent of which will be subject to negotiation and agreement of the contract parties. Our customers are usually required to provide 30% of the construction and installation fee as deposit upon signing of the supply contract, 40% to 50% of the construction and installation fee during the construction period and the remaining 20% to 30% upon completion.

During the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, we completed piped natural gas connections to 2,074,270, 2,301,590, 2,397,202, 1,286,538 and 1,025,021 residential households, respectively. During 2019, the average construction and installation fee charged by us was RMB2,539 per household.

For C&I customers, the construction and installation fee is determined based on the designed capacity of the gas appliance facilities (on a per m^3 per day basis) installed at the customers' premises. If any additional appliance is installed subsequently, additional construction and installation fees will be charged to reflect the additional capacity installed. Discounts of the approved fee payable may be offered to high gas usage volume C&I customers, subject to negotiation and agreement of the contract parties. Construction and installation fees are collected in advance by instalments based on the percentage-of-completion of the pipeline construction work. In general, a C&I customer is required to provide 30% of the construction and installation fee as deposit upon signing of supply contract, 40% to 50% of the construction and installation fee during the construction period and the remaining 20% to 30% upon completion. In the event customers default in the payment of construction and installation fees, we will not start the supply of gas to these customers until the construction and installation fees are fully paid. The deposits received from customers upon the signing of supply contracts would normally cover our costs.

During the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2020, we completed piped natural gas connections to 23,200, 29,226, 27,656, 12,110 and 8,326 C&I customers, respectively. During 2019, the average construction and installation fee charged by us to C&I customers was RMB100 per m^3.

Wholesale of Gas Business

We derived a portion of our revenue from the wholesale of gas. In 2019, our gas sales volume of the wholesale of gas business reached 7,039 million m^3, representing a significant increase from 2018 by 18.1%.

Integrated Energy Business

In addition to the distribution of natural gas to residential, C&I and vehicle customers, we also distribute other energy in the forms of steam, heating, cooling, electricity, etc. through our integrated energy projects.

With continued economic growth in China, there has been significant pressure on China's energy resources. Moreover, high energy consumption, pollution and greenhouse gas emissions have imposed a serious threat to China's environment and society, thus, the government aims at reducing energy intensity per unit of GDP growth. In response to this development, we have begun providing integrated energy solutions to our customers, which utilize the most competitive and cleanest local energy resources to achieve cascade use of energy and increase overall energy utilization to 80% or higher. Integrated energy projects possess better peak shaving ability, more efficient, cleaner and safer compared to conventional centralized energy supply, and it reduces customers' overall energy bills, thus, welcomed by customers as well as local governments.

Currently, we are actively developing integrated energy business in key regions. We have initiated various municipal, industrial and commercial integrated energy projects, which are energy systems tailored to customers' demands. As of June 30, 2020, we had 108 integrated energy projects in operation, serving customers including airport, railway stations, industrial parks and municipal areas. Revenue from our integrated energy business RMB2,101 million, driven by a 146.2% increase in energy sales.

All of these projects greatly enhance the utilization efficiency of energy resources and lower energy consumption costs for customers through the transformation, recycle use, cascading use, in-depth processing and diversified supply of energy resources. We intend to grow our integrated energy business to generate a new recurring revenue stream and boost our gas sales volume, as well as to help increase energy efficiency and reduce greenhouse gas emissions.

Value Added Business

During 2019, revenue from value added business amounted to RMB1,988 million, up 38.8% year-on-year. Benefiting from our diversified value added services provided to customers and continuous efforts to promote high-end and smart products, gross profit increased significantly by 125.5% year-on-year to RMB1,236 million. Gratle's gas appliances and various household products achieved higher sales to 431,268 units during the year, representing a year-on-year growth of 75.7%. Currently, penetration rate of value added business among the Group's overall customers is only 7%, while among the newly developed customers during the year, penetration rate was 14%, reflecting the rapid development of this business and its huge growth potential.

PRICING

Currently in China, gas pipeline construction and installation fees and gas usage fees are subject to the approval of the local pricing bureau. Gas pipeline construction and installation fees may be determined after an analysis of factors such as estimated capital expenditure, number of users, growth in penetration rates, income levels and affordability of local end-users. Gas usage fees for residential end-users and any adjustment to such fees may only be approved by local pricing bureaus following a hearing, except projects where the end-user price is automatically linked to upstream costs. In cities with established price linkage mechanisms, retail prices to downstream residential users of natural gas will be adjusted in line with adjustments in prices for upstream purchases of natural gas supply.

Indicative prices for C&I customers, and CNG/LNG vehicle refueling station customers are set by the local governments. We will confirm the final price with customers based on the indicative price set by the local government. The PRC government has been gradually liberalizing the prices for gas supply. On November 18, 2015, the NDRC issued the Notice on Reducing Non-Residential Natural Gas City-Gate Prices and Further Promoting the Reform toward Market-Oriented Prices, pursuant to which (i) the maximum city-gate price for non-residential users was reduced by RMB0.7 per m^3, effective on November 20, 2015; and (ii) suppliers and buyers can negotiate prices subject to a cap of 20% premium to relevant city-gate price and without price floor. The NDRC set city-gate prices as a benchmark instead of ceiling price and permit to adjust it upward from November 20, 2016. On June 20, 2017, the NDRC published the Guidelines which articulated the principle of "permitted costs plus reasonable returns" with a 7% cap on the return ratio for natural gas distributors in determining the natural gas distribution tariff. The implementation of Guidelines will be subject to detailed rules by NDRC's local branches and price bureaus to be finalized by June 2018. See "*Risk Factors — Risks Relating to Our Business — We are subject to price controls in certain markets and may not be able to pass through increased costs to end-customers.*"

SALES AND MARKETING

Our head office is responsible for structuring our overall sales and marketing strategies. The individual sales and marketing team of each project company works closely together with head office to formulate an appropriate plan with reference to a specific operational location's situation and needs. The sales and marketing team is responsible for company imaging and brand building as well as promoting the use of natural gas as an indispensable green, low-carbon and sustainable way of life.

For new projects, after a project company is established, we implement a series of promotional campaigns (which may include joint promotional campaigns with the local government) to increase public awareness of piped gas in the operational location. We also commence active marketing negotiations on the terms of supply contracts with target customers (both residential and C&I customers) with the aim of entering into supply contracts with them as soon as possible. For example, we market our businesses to owners' committees of existing buildings that do not have piped gas supply. Representatives of the owners' committees may consult individual households as to whether they wish to have piped gas supply and coordinate the collection of construction and installation fees from the users on our behalf. Construction and installation fees are payable in advance by both residential and C&I customers. In contrast, gas usage charges are paid in advance by residential customers and some of our C&I customers.

Our customers' energy demand is gradually shifting from single source of energy to an integrated solution with diversified energy sources. As a result, we try to expand our services to our existing customers by providing the refitting services to C&I customers to enhance their energy utilization efficiency and reduce their energy consumption costs.

Taking the advantage of innovative information technology, we have employed a wide array of advanced technological tools to enhance our business and improve our management. For example, we employed information systems to analyze regional customer needs and preferences, which enables us to implement more effective targeted marketing initiatives and develop new business opportunities. With the implementation of the market insight and sales operation system for over two years, we have successfully maintained our customer-oriented approach in response to the changes in customer needs, thereby greatly enhancing our sales.

PURCHASES

Our main categories of purchase are gas, pipes, machinery, equipment and gas appliances. None of our directors, their respective associates or, to the best knowledge of our directors, any of our shareholders who own more than 5% of the issued share capital of our Company, has any interest in any of our five largest suppliers.

We have established firm business relationships with our major suppliers for long periods. We also benefit from long-term gas supply contracts between the local government of each operational location and one or more upstream gas suppliers who guarantee to the local government an adequate supply of gas to the operational location for 15 to 25 years. In addition, we have entered into and intend to continue to enter into take-or-pay or other long-term gas supply contracts with upstream gas suppliers or their distributors for some of our operational locations to secure long-term gas supply for such operational locations. In addition, we continue to step up our efforts to maintain and strengthen cooperation with our long-term suppliers in a wide range of areas. For instance, we have entered into a strategic cooperation framework agreement with Sinopec Marketing Co., Ltd., a wholly-owned subsidiary of China Petroleum & Chemical Corporation, in various aspects, including the procurement and transportation of natural gas. We believe our scale has given us bargaining power in securing more favorable terms relative to most other piped gas companies. We believe we have good relationships with our suppliers and we have not experienced any difficulty in the sourcing of natural gas or other major supplies.

Gas

To achieve the goal of promoting the use of clean energy in China, the Chinese government has been expanding its investment in natural gas infrastructure in recent years by constructing onshore and offshore infrastructure, connecting pipelines within and outside China. As of December 31, 2019, 22 LNG import terminals with total annual receiving capacity of over 70.62 million tons have been established in China. In addition, there were over 233 LNG processing plants in China with a combined annual capacity of over 33.29 million m^3. In 2019, a number of national long-distance pipelines were put into operation, including the third West-East Pipeline. Furthermore, China continues to expand its gas supply infrastructure, and more pipelines and LNG terminals are being constructed and will be put into operation in the near future. Therefore, we believe that our gas projects will be able to enjoy stable supplies of natural gas.

Leveraging on the natural gas infrastructure in China, we have established a multi-dimensional network of securing natural gas supply from a diversified sources in a cost-efficient manner, which includes entering into take-or-pay contracts, other long-term supply contracts, or guaranteed gas supply contracts with the major upstream pipeline gas suppliers in China, purchasing CNG and LNG at the prevailing market price, mobilizing and expanding our non-pipeline transmission capacity, and utilizing third-party or our own LNG processing plant resources.

We have entered into agreements to purchase natural gas from three major upstream natural gas suppliers in China, namely PetroChina, Sinopec and CNOOC, or their distributors. These take-or-pay or other long-term supply contracts usually whose volume can be renewed. Additionally, in 2016, we entered into long-term LNG sale and purchase agreements, which last for 5 to 10 years, with Chevron U.S.A INC., Origin Energy LNG Portfolio Pty Ltd. and Total Gas & Power Asia Private Limited, pursuant to which we are obliged to import up to 1.44 million tons of LNG per year starting from the second halfof 2018 progressively.

The gas procurement cost of our city-gas projects is agreed between us and the suppliers with an upward adjustment range not exceeding 20% of the applicable city-gate price set by the NDRC. No price floor is applicable for any downward adjustment from the applicable city-gate price. See "*Business — Pricing*" for details.

The quantity of natural gas to be supplied to us by our upstream suppliers is usually stated in our gas purchase agreements. Except for certain projects located in areas surrounding the long-distance pipelines such as the West-East Pipeline Project in connection with which we have entered into long-term take-or-pay gas purchase contracts with upstream suppliers, we are only required to pay the actual quantity purchased. We believe that the stated quantities of natural gas as set out in the relevant existing gas purchase agreements are sufficient for the potential demand of gas by the respective project companies.

Payments for the piped gas supplied to us are made on a weekly basis, the calculation of which includes elements of both payment in arrears based on actual use and payment in advance based on estimated usage. We believe that such arrangement is beneficial to us because it enables the relevant projects to secure long-term guaranteed gas supply at a predictable price level (since the contracts are subject to caps on annual price increases), which is of strategic importance in the long run as we believe that demand for natural gas in China will continue to increase.

Any delivery of gas is recorded by a meter installed at the point where our intermediate pipelines connect with the suppliers' long-distance pipelines. We pay for gas through cheques, bank drafts or remittance denominated in Renminbi in accordance with the gas supply agreements. For the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, the cost of gas purchases accounted for 82.0%, 88.1%, 85.5%, 86.8% and 84.0% of our cost of sales, respectively.

We purchase CNG and LNG, as appropriate, at the prevailing market price to supplement our natural gas supply. Our supply agreements are generally entered into by individual project companies with our upstream natural gas suppliers. The pricing terms under these agreements may vary depending on the supplier and the locality of our operations. Under certain agreements, we have to pay a higher price if our natural gas needs exceed the amount contracted for. Other agreements provide for two purchase prices, namely a basic gas price and an industrial gas price. We specify what percentage of our gas will be supplied for industrial use and pay upstream suppliers accordingly. Our natural gas sales/purchase contracts generally state that the stipulated selling/purchase price of natural gas is subject to adjustment according to any new PRC government pricing policies.

Pipes, Machinery and Equipment

We purchase pipes of various diameters and wall thickness for installation in different segments of the gas pipeline infrastructure (the specifications of which must comply with PRC standards and regulations). We purchase all of our pipes, machinery and equipment domestically and settle our payments in Renminbi with credit terms ranging from 30 to 90 days.

Gas Appliances

In addition to gas connection services, we sell certain gas appliances, including cooking stoves, water boilers, heaters and other gas appliances to our customers. We usually purchase such gas appliances in bulk directly from manufacturers in China and hold a limited amount of stock for resale. We have also developed and launched our own brand, "GRATLE" (formerly known as "GREAT"), for certain gas appliances. We will provide repair and maintenance services for such appliances. These gas appliance facilities typically have a warranty period of three years..

STORAGE AND TRANSPORTATION NETWORK AND CAPACITY

Our project companies are equipped with energy storage systems and complete energy distribution networks. We also provide such companies with capacity in pipelined and non-pipelined gas storage and transportation.

We have built an integrated energy storage and transportation network, including roads, waterways, railways, pipelines and reserves, which facilitates the distribution within China as well as the importing of natural gas. We are able to dispatch a fleet of LNG/CNG trucks, which substantially facilitates the allocation of gas sources for city-gas projects, vehicle refueling stations and wholesale business.

As of June 30, 2020, we had 199 natural gas processing stations with a combined daily supply capacity of more than 154,017,230 m^3, which guarantees our gas supply. We generally own the land use right and facilities of our storage centers. We may sell the LNG in storage to any purchaser, including our competitors.

SAFETY AND QUALITY CONTROL

Safety

We place great emphasis on safety and continue to maintain a good record of safe operation. We have established a dedicated safety department to oversee safety issues for the project companies and adopted a comprehensive safety administration system. We utilize information technologies to improve our management of the process of gas production and operation. We are committed to building an excellent safety management system, reducing and containing risks, encouraging organizations to perform daily monitoring and report any potential dangers through digital and visual management platforms, and formulating comprehensive safety guidelines and measures to ensure that our safety performance meets the highest standard. We have established our health, safety and environmental management system and launched the "3-Zero" Campaign (zero accident, zero personal injury and zero harmful act to the environment) to further strengthen the implementation of such system.

We carry out, through our project companies, routine inspection of the branch pipelines, customer pipelines, gas meters and gas appliances at customers' premises more than once a year. These inspections are free unless major repairs are required, in which case we charge the customers for labor, replacement parts and other materials used for the repairs.

We believe in educating users about safety procedures. Accordingly, before gas is actually supplied, we give a thorough explanation of safety procedures to users, and arrange regular seminars or distribute brochures and booklets on safety for end users. We also have in operation the "95158" national 24-hour hotline for enquiries and reporting of emergency matters.

We have also prescribed and implemented the Operational Safety and Management Supervision Manual for the detection and prevention of the occurrence of accidents in facilities such as the long-distance natural gas transmission pipelines, natural gas processing stations, natural gas compression facilities, and CNG/LNG vehicle refueling stations and during the natural gas pipeline or CNG/LNG vehicle refueling station operating process. The Operational Safety and Management Supervision Manual was drafted in accordance with the People's Republic of China Industry Standards-Urban City Gas Facilities Operations, Maintenance and Emergency Repair and Maintenance Safety Technology Guidelines and our internal Xinao Gas Maintenance and Emergency Repair Coordination Plan.

For us to effectively monitor the operations of the pipelines, in particular, gas usage, gas leakages, or any other irregularities, we collect information about the temperature, pressure and volume of gas from key points along the main pipelines. The information is analyzed in the control center located in the head office of each operational location. We use a computerized system known as the Supervisory Control and Data Acquisition system in several operational locations whereby a number of small detectors are installed along the main pipelines to collect such information and relay it back to the control center electronically. In other locations, information collection is currently carried out manually by the operational location's own personnel. Each project company conducts a major inspection of its pipelines, natural gas processing station(s) and other equipment more than once a year. Should gas leakages or any other irregularities be detected, we will take remedial action immediately. We continue to upgrade the information technology systems of our project companies to enhance our safety monitoring and management efficiency. We also focus on providing safety training to our staff.

In response to the outbreak of COVID-19 in China at the beginning of 2020, our headquarters and each of our member companies has formed an epidemic prevention and control team, coordinating epidemic prevention and control in accordance with national and local government requirements. We have implemented various policies to keep our employees safe and healthy, including regular disinfection at office areas, canteens, apartments and official vehicles; daily monitoring of the physical health of our employees; utilizing iCome platform for daily epidemic report mechanism to analyze the health statuses of employees, tracking health statuses of employees on quarantine and preparing contingency plans in advance to ensure the orderly implementation of epidemic prevention. As a leading enterprise in the public utilities sector, we are determined to ensure the safety of people's livelihood and gas usage during the COVID-19 outbreak, strengthen the promotion of epidemic prevention knowledge both internally and externally, and ensure all departments are working closely together to protect frontline employees, providing masks, protective suits, goggles and other supplies, ensuring employees to provide services to customers safely.

Quality Control

Quality control begins in the design and construction phase of the gas supply infrastructure. Our quality control team regularly makes inspection visits and conducts tests to ensure that construction work meets our required standards.

We also have strict quality control procedures for the sourcing of raw materials. Accordingly, we only purchase from our internally approved list of qualified suppliers, where such suppliers are required to have satisfied the relevant national standards.

To effectively monitor the quality of gas that we purchase, we regularly obtain gas composition reports from our gas suppliers. Such reports include details on the heat content and composition of impurities.

CUSTOMER SERVICE

We believe that quality customer service is the key to maintaining good and long-term relations with our customers, and is the bedrock for our sustainable business development.

In addition to the consistent use of our information program to provide rapid and efficient services to our customers, all of customers are covered by our call centers, which are responsible for handling enquiries and requests. Our national call center is composed of five regional call centers and 14 directly managed call centers, located in Langfang, Qingdao, Luoyang, Yancheng, Huzhou, Shijiazhuang, Yantai, Changzhou, Quanzhou, Ningbo, Changsha and Dongguan. We also provide online services and applications for our newly established projects.

Customers may also reach us via our customer service mobile applications or call centers to seek advice on addressing minor technical failures or report emergencies. An automatic pass-through mechanism with the hotline 110 was also established to provide one-stop services. Our call centers also acquired the International Customer Operations Performance Centre (COPC) recognition in 2012, making it the first call center operator in the energy sector in China to receive COPC recognition.

To provide greater convenience to our customers, some of our project companies have been cooperating with local banks, convenience stores and supermarkets in the collection of gas usage charges through their branch and outlet networks.

All of our group companies are required to visit customers for safety checks on their gas appliances more than once a year. These measures help to relieve customers' worries regarding potential safety problems, and thus increase their confidence in our services. In addition to regularly monitoring the quality of such services through our public service monitoring network and service and complaint hotlines, we periodically carry out customer surveys with gas users to seek customer feedback on the quality of our installation work and after-sales services.

RESEARCH AND DEVELOPMENT

Our in-house research and development team comprises members specializing in the fields of energy, mechanical and electronic engineering. Areas under research and development include:

- information technology systems to increase construction safety;

- equipment that automatically and instantly detects natural gas leakage;

- bunkering, vessel engine conversion and bunkering terminal construction; and

- optimization of distributed energy system and methods to increase energy utilization efficiency.

Furthermore, to closely track gas-related developments overseas, representatives from the research and development department regularly attend international gas conferences and have exchange programs with overseas gas companies.

INTELLECTUAL PROPERTY

We place significant emphasis on developing our brand image and rely on trademark registrations to protect all aspects of our brand image. As of the date of this Offering Memorandum, the Group had 2,399 trademarks, which are registered in both the PRC and HK. Pursuant to the trademark licensing agreement entered into between us and Xinao Group Co., Ltd. On January 1, 2019, we are entitled to use the trademark "" on permitted products in permitted regions until December 31, 2021, as set out in the trademark licensing agreement. We also developed and launched brand of "GRATLE" (formerly known as "GREAT") for our gas appliances and we will continue to adopt appropriate measures and strategies to protect such valued intangible assets.

ENVIRONMENTAL MATTERS

We operate a natural gas pipeline distribution network and the principal business includes the sale of piped gas. Our major infrastructure facilities that are at risk for accidents such as gas explosions and natural gas leakage include our natural gas pipelines, CNG/LNG vehicle refueling stations and natural gas storage tanks. Natural gas pipelines are used to transmit natural gas to residential and C&I customers as well as to CNG/LNG vehicle refueling stations. CNG/LNG vehicle refueling stations are where natural gas is compressed/liquefied and refueled. Natural gas storage tanks store natural gas as a reserve to meet peak demand.

Serious damage to such facilities may harm the environment. Accordingly, we have set up a number of procedures and policies designed to prevent and manage any potential damage to the fullest extent possible. For example, we have a methane emission management system to address greenhouse gas emissions caused by methane leakage. Since 2014, we have deployed technical strategies for gas reduction, emission reduction and boil-off gas recovery at filling stations. In addition, we are required to comply with a number of environmental rules and regulations.

To ensure that our emergency prevention and repair efforts operate smoothly, we carry out at least one emergency drill each year.

In addition to our internally commissioned control, hazard prevention and emergency recovery procedures, we strive to comply with the relevant environmental protection regulations and have all licenses required to operate.

PROPERTY

We both own and lease properties for our operations. When we state that we own certain properties in China, we own the relevant long-term land use rights. In China, with very few exceptions, industrial land is owned by the state.

We hold the land use rights to the underlying parcel of land for our facilities located in our operational locations in the PRC. We occupy our owned properties for purposes of, among other uses, production, storage, and office use.

As of the date of this Offering Memorandum, we had not obtained the proper building ownership certificates for certain properties located in our operational locations in the PRC. See "*Risk Factors — Risks Relating to Our Business — We have not received land use right certificates and/or building ownership certificates for certain of our properties in China.*"

We currently lease 718 major properties in our operational locations in the PRC for office and other uses.

INSURANCE

We have obtained insurance for certain fixed assets (excluding the pipelines owned by us) that we consider to be subject to significant operating risks, and we have obtained specific insurance for underground pipelines with a net book value of approximately RMB7.75 billion located in seismic areas such as Langfang, Shijiazhuang, Huludao and Quanzhou. We have also obtained insurance for other fixed assets.

We have also taken out third party liability insurance policies covering (i) the loss of life or property of third parties arising out of any accident that may occur in our business operations (with maximum coverage being RMB50.0 million), and (ii) the injury or loss of life of staff arising out of the business operations (with maximum coverage being RMB500,000 per claim per person and capped at RMB50,000,000 per person). This practice is consistent with what we believe to be the industry practice in China. Accordingly, there may be circumstances in which we will not be covered or compensated for certain losses, damages and liabilities, which may in turn adversely affect our financial position and results of operations.

EMPLOYEES

As of December 31, 2019, we had 35,735 employees, substantially all of which were based in China. In recent years, our workforce has been steadily expanded to support the Group's new projects and business development. In line with our "people-oriented" principle, we continue our efforts in talent development by establishing a talent structure covering different levels and enhancing the competency of our people.

We provide a wide range of professional training and development programs to our employees and remunerate our employees at the market level with benefits such as bonus, retirement benefit, share option scheme and share award scheme. On the other hand, we continue to nurture future leaders and strive to enhance their abilities and skills rapidly through special programs, on-the-job training and mentorship and project-based training to build the talent pool for the Group's healthy development. We also engage outside professionals and consultants to organize seminars and training courses to equip our employees with new knowledge in the industry. We also sponsor our employees to attend external training programs organized by local and overseas institutions to acquire advanced knowledge and skills.

We consider our relations with our employees to be good and we have not experienced any strikes or disruptions due to labor disputes.

COMPETITION

Due to the nature of the piped gas supply business, where substantial capital investment and extensive physical installation of gas pipeline infrastructure are required, it is not economically or practically feasible for multiple distribution companies to operate in one location. Therefore, the local government will normally grant exclusive rights to a selected distributor to operate in a location and may grant rights of first refusal to extend the franchise period. Once we have identified a potential operational location, we will negotiate with the local government to obtain an exclusive right to supply gas to that operational location, which might cover the whole or the most densely populated areas of such operational location. While attempting to secure such exclusive rights or rights of first refusal, we may face competition from other distribution companies, which include stated-owned companies, privately-owned companies and foreign-invested enterprises. Once we have successfully obtained an exclusive right, we face little or no competition from other piped gas distribution companies in that locality during the concession period for 25 to 30 years. Due to our extensive experience and sound track record of safe and reliable piped gas supply to end-users, we believe that we are well-positioned to obtain exclusive rights to supply gas to new operational locations and rights of first refusal to extend our franchise period. As at December 31, 2019, our project companies have obtained exclusive rights or rights of first refusal to supply gas to substantially all of their respective 217 operational locations.

After we secure an operational location, we face competition from existing providers of other fuel substitutes such as bottled LPG, coal and, to a lesser extent, electricity, as electricity for heating purposes is more expensive than gas and less popular for cooking purposes. We believe that with the PRC government's planned phasing out of the use of coal as a result of its environmental policies, and the comparative advantages of natural gas over coal and LPG as a safer, cleaner and more convenient form of fuel, competition from other fuel substitutes does not represent a serious threat to our business. From a cost perspective and on an energy adjusted per unit basis, natural gas is more economical than bottled LPG and electricity.

We expect to face intense competition in both our CNG and LNG vehicle refueling station businesses. Unlike the piped natural gas business, the local government in China typically does not grant exclusive rights or rights of first refusal to a selected company to operate in a location. Moreover, our current, and potential, competitors include companies that are part of much larger companies, including state-owned enterprises. These companies may have greater resources than we do, including longer operating history, larger customer base, stronger customer relationships, greater brand or name recognition and greater financial, technical, marketing, relationship and other resources. The growth of our CNG and LNG vehicle refueling station business also depends on increased adoption of natural gas by vehicle owners. As such, we also face competition from distributors of other alternative fuels and technologies used in hybrid or electric vehicles. We believe our effective management of vehicle gas refueling stations and safety management help us remain competitive in the vehicle refueling station business and have resulted in significant loyalty to our gas operations across our operational locations.

We also expect to face intense competition in our integrated energy and value added businesses. Our current and potential competitors include companies that are part of much larger companies, including SOEs, affiliates of PRC national oil and gas companies and domestic and regional gas distributors. For example, in our integrated energy businesses, we also face competition from other big energy companies and power generation firms who engage in the production and sale of fuels, the wholesale distribution of finished oil and heavy oil products and the operation of retail gas stations. These energy companies may have greater resources than we do, including a longer operating history, a larger customer base, stronger government and customer relationships and greater financial, technical, marketing, relationship and other resources. These competitors may also have greater economies of scale, operating efficiencies and significant government support. Such competition could result in loss of market share and affect the growth of the business. If we are unable to remain competitive, we may not be able to acquire sufficient new and quality integrated energy projects for our transformation into an integrated energy service provider.

LEGAL PROCEEDINGS

Neither we nor any of our subsidiaries are involved in any litigation which would have a material adverse effect on our business or financial position and no material litigation or claim is known by us to be pending or threatening against us or any of our subsidiaries.

We operate in an industry that is generally regulated by a number of different PRC state ministries and departments, including without limitation, the NDRC, the National Energy Administration, or the NEA, the *Ministry of Housing and Urban-Rural Development* (formerly known as the *Ministry of Construction*), or the MOHURD, the General Administration of Quality Supervision, Inspection and Quarantine, or the GAQSIQ, and is subject to laws and regulations which govern different aspects of our operations in China, including without limitation, pricing of natural gas, operations of urban gas, project approvals and safety. In addition to industry-specific requirements, our operations are subject to general regulations in China, including regulations on foreign exchange, labor protection and taxation.

Natural Gas Industry Policies

On October 14, 2012, the NDRC promulgated Policies on Natural Gas Utilization (《天然氣利用政策》), which became effective on December 1, 2012. Under the policy, the users of natural gas are categorized into users of city gas, industrial fuel, power generation by natural gas, chemical engineering using natural gas, and other users. Balancing factors such as its social, environmental and economic benefits, and the different profiles of its users, natural gas users are also divided into the following categories: prioritized, permitted, restricted and prohibited.

Gas Operation License

The Administrative Licensing Law (《行政許可法》) was adopted by the Standing Committee of the National People's Congress on August 27, 2003, amended and became effective on April 23, 2019, pursuant to which local governments are empowered to grant licenses to privately owned entities to engage in specified businesses. On June 29, 2004, the State Council issued the Decision of the State Council to Implement Administrative Licensing for Reserved Administrative Approved Items (《國務院對確需保留的行政審批項目設定行政許可的決定》), together with the Administrative Licensing Law, the Administrative Licensing Regulations. Pursuant to the Administrative Licensing Regulations, an enterprise which operates in the gas distribution business in China is required to obtain a gas operation license (《燃氣經營許可證》) from the local government in charge of construction.

On October 15, 2004, pursuant to the Administrative Licensing Regulations, the MOHURD issued the Provisions Regarding the Conditions for the Fifteen Administrative Approval Items Adopted by the State Council (《建設部關於納入國務院決定的十五項行政許可的條件的規定》), or the Condition Provisions, which was amended on September 7, 2011 and September 16, 2019.

On October 19, 2010, the Regulations on the Administration of Urban Gas (《城鎮燃氣管理條例》) were promulgated by the State Council and became effective on March 1, 2011, which was further amended and became effective on February 6, 2016. The Regulations on the Administration of Urban Gas applies to urban gas development plans and emergency safeguards, gas operation and service, gas use, gas facilities protection, prevention and disposal of gas safety accidents and the relevant administrative activities. Pursuant to the Regulations on the Administration of Urban Gas, an enterprise which carries on gas operation in China must meet the following requirements to obtain a gas operation license from the local government at or above the county level in charge of gas administration:

(i) conform to the fuel gas development planning requirements;

(ii) have gas sources and gas facilities that meet national standards;

(iii) have fixed business premises, a safety management system and a sound management plan;

(iv) assign a principal responsible person from the enterprise, personnel for the administration of production safety and operation and personnel for maintenance and repair who have received professional training and passed relevant examinations; and

(v) other requirements provided by PRC laws, rules and regulations.

Concession Rights

On March 19, 2004, the MOHURD issued the Measures for the Administration on the Concession of Municipal Public Utilities (《市政公用事業特許經營管理辦法》), or the Concession Measures, effective on May 1, 2004, which was further amended and became effective on May 4, 2015, to promote concession systems in utility industries including the pipeline gas distribution industry. Pursuant to the Concession Measures, local governments will normally grant concession rights to operate piped gas distribution businesses in a specified area. Such specified area may be part or all of the city or county, depending on the terms of the concession rights granted. The PRC government authorities in charge of utilities at the city or county level are responsible for the implementation of the Concession Measures. Pursuant to the Concession Measures, the concession period normally will not exceed 30 years.

In September 2004, the MOHURD published a standard form of concession contract with respect to piped gas distribution for guidance. The form of concession contract has specific provisions mainly in respect of:

(i) granting, revocation and termination of the concession;

(ii) construction, maintenance and improvement of the gas distribution facilities;

(iii) gas distribution safety;

(iv) quality of the gas and standards of services;

(v) fees;

(vi) default liabilities; and

(vii) dispute resolution.

Pricing of Natural Gas

According to the PRC Pricing Law, the PRC government may direct, guide or fix the prices of public utilities according to a pricing schedule prescribed by the central or the local governments. China's pricing regime for domestic natural gas comprises three components: wellhead price, transportation costs and end-user prices. The NDRC determines the benchmark wellhead price as well as the transportation tariff for national long-distance transmission pipelines, but also permits natural gas purchasers and sellers to contractually agree on the specific city-gate price based on the benchmark city-gate price, which cannot be more than 20% higher than the benchmark city-gate price. Provincial price control bureaus determine the transportation costs for provincial gas pipelines, including provincial long-distance transmission pipelines. Local governments determine the end-user price.

The pipeline transportation tariff of our piped natural gas available for wholesale is determined by the provincial price control bureau, based on a price schedule released by the NDRC. We also take into account the types of end users of a wholesale customer when determining the sales price of our natural gas to the customer. We obtain approval from the relevant local pricing authorities for the retail price of our piped natural gas that we sell in a particular region, as well as any adjustment of the retail price. In the case of natural gas for residential use, the relevant local pricing authorities determine the end-user price and any price adjustment are subject to a hearing process that involves the affected residence. The price of CNG in China is also determined by local pricing authorities. Our natural gas sales contracts generally state that the stipulated selling price of natural gas is subject to adjustment according to any new government pricing policies.

Natural Gas Policy

On the provincial level, natural gas price linkage mechanism is adopted in some provinces. The main objective of this trial method is to regulate the administration of natural gas pricing in Hebei Province, and to protect the legal interest of operators and consumers. Among others, the key focuses are (a) the price of natural gas consists of costs, profits and tax payments. Costs represent manufacturing costs, administrative expenses, financial costs and sales expenses arising from natural gas operating enterprises. Profits represent reasonable gains which should be received by natural gas operating enterprises in the ordinary course of business, and the profit margin on net assets of the enterprise shall not exceed 7% of the determined level. Tax payments represent taxes payable by natural gas operating enterprises in accordance with national tax laws; (b) the pricing of natural gas relies on a combination of government fixed prices and government- guided prices, and is managed by classification according to its operating mode; and (c) to establish a price linkage mechanism between the upstream wholesale gas prices and gas prices to end-users. Before the price linkage mechanism becomes effective for residential customers, a hearing must be conducted to determine the initial price. Following implementation of the initial price, there is no need to hold a price hearing again, and the prices will be published by the local pricing authority to the public upon verification in accordance with established procedures.

Project Approval

Pursuant to the PRC Urban and Rural Planning Law (《中華人民共和國城鄉規劃法》) implemented on January 1, 2008, and amended on April 24, 2015 and further amended on April 23, 2019, and the PRC Construction Law (《中華人民共和國建築法》) implemented on March 1,1998, amended on April 22, 2011 and further amended on April 23, 2019, and the Administrative Regulation of Construction Work Quality (《建設工程質量管理條例》) implemented on January 30, 2000, amended on October 7, 2017 and further amended on April 23, 2019, a construction planning permit and a construction permit must be obtained in relation to the engagement in the planning and construction of facilities and pipelines.

Petroleum and Natural Gas Pipeline Protection

The PRC Petroleum and Natural Gas Pipeline Protection Law (《中華人民共和國石油天然氣管道保護法》) was promulgated on June 25, 2010 and implemented on October 1, 2010. The PRC Petroleum and Natural Gas Pipeline Protection Law regulates the protection of pipelines for transportation of petroleum and natural gas in China as well as their ancillary facilities. The Energy Department of the State Council regulates the national pipeline protection in China in accordance with the PRC Petroleum and Natural Gas Pipeline Protection Law and other relevant departments of the State Council are responsible for the related work on protection of pipelines within their respective functions. The energy departments of provinces, autonomous regions and municipalities and departments designated by the governments of the municipalities and counties regulate the protection of pipelines of the administrative areas according to the law, and the other relevant departments of the local governments above county level are responsible for the related work on protection of pipelines within their respective functions in accordance with relevant laws and administrative regulations.

Hazardous Chemical Operation License

The Regulations on the Safety Administration of Hazardous Chemicals (《危險化學品安全管理條例》) were promulgated by the State Council on January 26, 2002 and last amended on 7 December, 2013. Pursuant to the Regulations on the Safety Administration of Hazardous Chemicals, entities engaging in the road transportation of hazardous chemicals shall obtain the road transportation license for hazardous chemicals pursuant to the relevant laws and administrative regulations on road transport, and complete registration procedures with the industry and commerce department.

The Measures for the Administration of Hazardous Chemical Operation License (《危險化學品經營許可證管理辦法》) were promulgated by the State Administration of Work Safety on May 27, 2015 and became effective on July 1, 2015. The Measures for the Administration of Hazardous Chemical Operation License established a licensing system for the operation and sale of hazardous chemicals. Entities engaged in the operation and sale of hazardous chemicals must obtain a hazardous chemical operation license (危險化學品經營許可證) pursuant to the aforesaid measures after registration with the administrative bureaus for industry and commerce. No entity or individual may operate or sell hazardous chemicals without obtaining the hazardous chemical operation license and registering with the administrative bureau for industry and commerce.

Gas Cylinder Filling Permit

The Regulations on Safety Supervision of Special Equipment (《特種設備安全監察條例》) were promulgated by the State Council on March 11, 2003 and became effective as of June 1, 2003 (amended on January 24, 2009 and effective from May 1, 2009). The "special equipment" referenced in the regulations refers to boilers, pressure vehicles (including gas cylinders), pressure pipelines, elevators, lifting alliances, yard (factory) special motor vehicles, passenger ropeways, and large amusement devices, which impact the safety of human lives or involve high risk.

Pursuant to the Rules on Gas Cylinders Filling Permit (《氣瓶充裝許可規則》) promulgated by the GAQSIQ on June 21, 2006 and became effective on October 1, 2006, enterprises operating gas cylinders filling shall obtain a gas cylinders filling permit (《氣瓶充裝許可證》) issued by the provisional quality supervision department.

Foreign Exchange

On July 4, 2014, SAFE issued the Circular on Relevant Issues Concerning Foreign Exchange Administration for PRC Residents to Engage in Offshore Investment and Financing and Round Trip Investment via Special Purpose Vehicles (《關於境內居民通過境外特殊目的公司境外投融資及返程投資外匯管理有關問題的通知》) ("**Circular 37**"). Circular 37 regulates that before contributing capital to a SPV with its legal assets or interests within or outside China, a domestic resident shall apply to the foreign exchange authority for undergoing the foreign exchange registration procedure for foreign investment. To make capital contribution with its domestic legal assets or interests, a domestic resident shall apply for registration with the foreign exchange authority at its place of registration or at the locality of the assets or interests it holds in a domestic enterprise. To make capital contribution with its overseas legal assets or interests, a domestic resident shall apply for registration with the foreign exchange authority at its place of registration or the place of its registered permanent residence. Furthermore, where there is any change in the basic information of registered SPV such as its domestic resident individual shareholder, name, or term of operation, or where a significant matter occurs such as a capital increase/decrease or equity transfer/replacement by a domestic resident individual, a merge, or a division, the foreign exchange modification registration procedure for foreign investment shall be undergone with the foreign exchange authority in a timely manner.

Labor Protection and Social Security

According to the Labor Law of the PRC (中華人民共和國勞動法), which took effect on January 1, 1995 amended and became effective on August 27, 2009, further amended and became effective on December 29, 2018, enterprises and institutions shall establish and perfect its system of work place safety and sanitation, strictly abide by State rules and standards on work place safety and sanitation, educate laborers of work place safety and sanitation, prevent accidents in the process of labor and reduce occupational hazards, and shall establish a system for professional training, extract and use funds for professional training according to state regulations, and provide laborers with professional training in a planned way and according to its specific conditions.

The Labor Contract Law of the PRC (中華人民共和國勞動合同法) effective as of January 1, 2008, amended on December 28, 2018 and became effective on July 1, 2013, emphasizes the conclusion of employment contracts in written form and imposes severe consequences for non-compliance. If the employer fails to conclude a written employment contract with an employee for one month to one year after the actual commencement of work, the employer must pay the employee double salary for the relevant months. If the employer fails to conclude a written employment contract with an employee for more than one year after the actual commencement of work, an unfixed-term of contract is deemed to have been concluded. Enterprises and institutions are forbidden to force the employees to work beyond the time limit and the employers shall pay employees overtime work in accordance with national regulations. In addition, wages shall not be lower than local standards on minimum wages and shall be paid to the laborers on a timely basis.

The PRC has established a social security system providing people with basic pension insurance, unemployment insurance, basic medical insurance, maternity insurance, and work-related injury insurance, and housing funding by promulgating the Social Security Law of the PRC (中華人民共和國社會保險法), the Provisional Regulations on the Collection and Payment of Social Insurance Premiums (社會保險費征繳暫行條例), Regulations on Work Injury Insurance (工傷保險條例), Regulations on Unemployment Insurance (失業保險條例), Decision on Establishing a Unified Basic Pension Insurance System for Enterprise Employees (關於建立統一的企業職工基本養老保險制度的決定), Regulations on Management of Housing Provident Fund (住房公積金管理條例) and many other regulations. Any employer who fails to pay its social insurance premiums or withhold the employee's portion may be ordered by the PRC Ministry of Human Resources and Social Security or the PRC Tax Bureau to make such payments within a stipulated period, and may be liable for a penalty.

Taxation

Enterprise Income Tax

Before January 1, 2008, the enterprise income tax of foreign-invested enterprises was governed by the Income Tax Law of the PRC of Foreign-invested Enterprises and Foreign Enterprises (中華人民共和國外商投資企業和外國企業所得稅法) (the "Income Tax Law of Foreign-invested Enterprises and Foreign Enterprises"), and a tax rate of 30% in respect of the taxable income was charged. The local income tax was computed on the basis of taxable income at the rate of 3%. On January 1, 2008, the Enterprise Income Tax Law of the PRC (中華人民共和國企業所得稅法) came into force and the Income Tax Law of Foreign-invested Enterprises and Foreign Enterprises were repealed concurrently. Income derived from the PRC by enterprises or other organizations shall be charged enterprise income tax at the rate of 25%. On December 26, 2007, the State Council issued Circular 39, pursuant to which, with effect from January 1, 2008, enterprises that previously enjoyed the regular tax exemptions, reduction and preferential treatments, such as "two years of exemption and three year of 50% reduction" of enterprise income tax and "five years of exemption and five years of 50% reduction" of enterprise income tax would continue to enjoy the preferential treatment according to the preferential measures and term prescribed in the original tax laws, administrative regulations and related documents until the expiration of the original terms. The term of preferential treatment for enterprises that did not enjoy preferential treatment due to lack of profit commenced in 2008.

Value Added Tax

The value added tax of foreign-invested enterprises was governed by the Provisional Regulations on Value Added Tax of the PRC (中華人民共和國增值稅暫行條例), which came into force with effect from January 1, 1994, and was amended on November 10, 2008, February 6, 2016, and further amended and became effective on November 19, 2017. Under the provisional regulations, valued added tax is payable on the sale and import of goods, the provision of processing, repair and labour replacement services and the leasing of tangible assets in China. The valued added tax is generally levied at 13%, however, tax rates less than 13% is applicable to the sales of certain categories of necessities and the provision of certain services.

MANAGEMENT

The following table sets forth certain information with respect to our directors as at the date of this Offering Memorandum:

Name	Age	Position
Mr. Wang Yusuo	56	Chairman of the Board of Directors and Executive Director
Mr. Han Jishen	56	Chief Executive Officer and Executive Director
Mr. Zhang Yuying.	47	President and Executive Director
Mr. Wang Dongzhi	51	Executive Director
Mr. Wang Zizheng	32	Non-Executive Director
Mr. Jin Yongsheng	56	Non-Executive Director
Mr. Ma Zhixiang	67	Independent Non-Executive Director
Mr. Yuen Po Kwong	51	Independent Non-Executive Director
Mr. Law Yee Kwan, Quinn . .	67	Independent Non-Executive Director
Ms. Yien Yu Yu, Catherine . .	50	Independent Non-Executive Director

EXECUTIVE DIRECTORS

Mr. Wang Yusuo, aged 56, is a founder of the Group, the Chairman and the Executive Director of the Company, and is the Chairman of the Nomination Committee. He is responsible for overseeing the Group's overall strategic planning and providing leadership for and overseeing the functioning of the Board. He has over 30 years of experience in investment and the management of the gas business in the PRC. He holds a Doctor of Philosophy in Management from Tianjin University of Finance and Economics. He is the father of Mr. Wang Zizheng, the Non-executive Director. He is the Chairman and a controlling shareholder of ENN Group International Investment Limited ("EGII"), a controlling shareholder of the Company. He is the Chairman of ENN Ecological Holdings Co., Ltd. (stock code: 600803) and a Director of ENC Data Technology Co., Ltd (formerly known as Beibu Gulf Tourism Corporation Limited, stock code: 603869), whose shares are listed on Shanghai Stock Exchange. He is also a Non-executive Director of Legend Holdings Corporation (a company listed on Hong Kong Stock Exchange, stock code: 3396.HK) (appointed on February 13, 2020).

Mr. Han Jishen, aged 56, is the Executive Director and the Chief Executive Officer of the Company, and is the Chairman of the Risk Management Committee and also the Environmental, Social and Governance Committee. He is fully responsible for the Group's strategic planning and execution, business development, etc. He graduated from Baoding Staff University in 1990 and obtained an Executive Master of Business Administration from the Nanyang Technological University in Singapore in 2007. He has joined the Group in 1993 and worked at the senior managerial level for 20 years in various subsidiaries of the Group and has extensive experience and qualifications in market research, business development and operation management in the energy industry. He has an in-depth understanding of energy industry and the current businesses of the Group, and he also has insights into the strategic development of the Group.

Mr. Zhang Yuying, aged 47, is the Executive Director and the President of the Company, and a member of the Risk Management Committee. He assists Chief Executive Officer of the Company to ensure the execution and achievement of strategies and smart operation of the Group, especially on the strategic execution of integrated energy business. He graduated from Renmin University of China in 2003 with a Master's Degree in Business Administration. Prior to joining the Group, he worked in Kaifeng Electromechanical Group and Henan Tongli Electrical Appliances Group. After joining the Group, he held various important positions in business planning and strategic performance management of the Group. He has extensive experience in corporate market insight, strategic research and planning and operational excellence.

Mr. Wang Dongzhi, aged 51, is the Executive Director of the Company, and a member of the Risk Management Committee and Environmental, Social and Governance Committee. He is responsible for the corporate governance, design and the monitoring of implementation of internal control strategies of the Group. He graduated in 1991 with a Bachelor Degree in Engineering Management from the Beijing Chemical University. He obtained a Bachelor's Degree in Economics in 1996, the qualifications of Certified Accountant in the PRC in 2000, a Master's Degree in Business Management from the Tianjin University in 2003 and received the Executive Master of Business Administration from China Europe International Business School (CEIBS) in 2016. Prior to joining the Group in 2000, he was in charge of the finance department in a Sino-foreign joint venture company. He has extensive experience in financial management. He is also the Director and President of EGII (the controlling shareholder of the Company), and he is also an Independent Director of Abterra Ltd. (a company listed on Singapore Stock Exchange, stock code: ABTR.SI).

NON-EXECUTIVE DIRECTORS

Mr. Wang Zizheng, aged 32, was re-designated to a Non-executive Director of the Company on March 16, 2020. He is currently a member of the Environmental, Social and Governance Committee. He has joined the Group in 2014 and served as the Executive Chairman of the Company during May 11, 2018 to March 16, 2020, responsible for assisting the Chairman and Vice Chairman of the Board in overseeing the Group's overall strategic planning and functioning of the Board. He graduated from Tongji University with a Bachelor's Degree in Urban Planning. He has extensive experience in investment, merger and acquisition and operation management of overseas LNG refuelling stations. He is a director of EGII (the controlling shareholder of the Company), and he is also a Director of ENN Ecological Holdings Co., Ltd. (stock code: 600803) and the Chairman of ENC Data Technology Co., Ltd (formerly known as Beibu Gulf Tourism Corporation Limited, stock code: 603869), whose shares are listed on Shanghai Stock Exchange. He is the son of Mr. Wang Yusuo.

Mr. Jin Yongsheng, aged 56, was appointed as the Non-executive Director of the Company and a member of the Nomination Committee on March 16, 2020. He graduated from the Tianjin University of Finance and Economics in 1986, majoring in finance, and has obtained an Executive Master's Degree in business administration from the Peking University in 2005. He is qualified to practice law in China. He was an Executive Director of the Company from 2000 to 2006, responsible for the management of the Group's administration, legal affairs and investor relations. He was then re-designated to be a Non-executive Director due to work re-arrangement from 2006 to 2017. He was the Executive Director and Chief Executive Officer of CIMC Enric Holdings Limited (a company listed on the Hong Kong Stock Exchange, stock code: 3899.HK) from 2006 to 2009, and then was re-designated to be a Non-executive Director from 2009 to 2018. He is currently a Director of EGII, the controlling shareholder of the Company and a Director of ENN Ecological Holdings Co., Ltd. (a company listed on Shanghai Stock Exchange, stock code: 600803) and a Non-executive Director of Shanghai Dazhong Public Utilities (Group) Co., Ltd. (a company listed on Hong Kong Stock Exchange, stock code: 1635.HK).

INDEPENDENT NON-EXECUTIVE DIRECTORS

Mr. Ma Zhixiang, aged 67, was appointed as the Independent Non-executive Director of the Company on March 24, 2014. He is currently a member of Audit Committee, Nomination Committee, Remuneration Committee, Risk Management Committee and Environmental, Social and Governance Committee. He has held senior management positions in China Petroleum Pipeline Bureau and PetroChina Company Limited and has resigned from these positions in March 2012. He graduated from School of Mechanics of University of Petroleum (East China) with a Doctor's Degree in Engineering in Storage and Transportation. He has over 40 years of extensive experience in corporate management practices and experience in the petroleum and natural gas industry.

Mr. Yuen Po Kwong, aged 51, was appointed as the Independent Non-executive Director of the Company on March 24, 2014. He is currently the Chairman of the Remuneration Committee and a member of Audit Committee, Nomination Committee and Risk Management Committee. He is currently a Partner of Fangda Partners specializing in dispute resolution and contentious regulatory compliance. He graduated from Oxford University in England with a Master's Degree in Chemistry and from Cornell University with a Master's Degree in Synthetic Organic Chemistry. He then attended College of Law in Guildford, England and obtained his Diploma in Law (with Distinction) and Diploma in Legal Studies. Before studying law in England, He was a teaching fellow at Cornell University. Prior to joining Fangda Partners to establish its Hong Kong office in 2012. He was a partner of the "Magic Circle Firms," specializing in resolving China related disputes. He has extensive experience in regulatory and corporate compliance.

Mr. Law Yee Kwan, Quinn, *JP*, aged 67, was appointed as the Independent Non-executive Director of the Company on May 30, 2014. He is currently the Chairman of Audit Committee and a member of Nomination Committee, Remuneration Committee and Risk Management Committee. He is a fellow member of HKICPA and the Association of Chartered Certified Accountants. At present, he serves as a court member at the Hong Kong University of Science and Technology. He played significant management roles both in the private and public sector. He held directorship in several listed companies both in Hong Kong and overseas in the past. During the period from March 2008 to February 2013, he was the Deputy Chairman and Managing Director of the Urban Renewal Authority, a statutory organization in Hong Kong. He is currently the Independent Non-executive Director of HKBN Limited (stock code: 1310.HK), Bank of Tianjin Co Ltd (stock code: 1578. HK) and BOC Hong Kong (Holdings) Limited (stock code: 2388.HK), whose shares are listed on Hong Kong Stock Exchange.

Ms. Yien Yu Yu, Catherine, aged 50, was appointed as the Independent Non- executive Director of the Company on November 30, 2018. She is currently a member of Audit Committee, Nomination Committee, Remuneration Committee and Risk Management Committee of the Company. She has over 20 years of experience in the areas of corporate finance, capital markets and mergers and acquisitions. She is currently a Managing Director of Rothschild & Co Hong Kong Limited, the Deputy Chairman of the Listing Committee of the Stock Exchange and a member to the Advisory Committee of the Securities and Futures Commission. She is also an Independent Non-executive Director of CIMC Enric Holdings Limited (a company listed on the Hong Kong Stock Exchange, stock code: 3899.HK). Ms. Yien was an Independent Non-executive Director of the Company from September 2004 to May 2016. Ms. Yien is a holder of the Chartered Financial Analyst designation and an ordinary member of the Hong Kong Securities and Investment Institute. She graduated from the Imperial College of Science, Technology and Medicine of University of London in England with a Joint Honors Degree in Mathematics with Management (BSc Hons).

SENIOR EXECUTIVES

Our senior executive team includes Wang Yusuo, Han Jishen, Zhang Yuying and Wang Dongzhi. See "— *Executive Directors*" for the description of their experience. In addition, our senior executive team also includes Zhang Jin, Liu Jianfeng, Niu Yunfeng, Zhou Zhizhu, Wu Xiaojing, Jiang Chaoxing, Su Li and LIANG Hongyu.

The table below sets forth certain information regarding our senior executives, excluding Executive Directors:

Name	Age	Position
Ms. Zhang Jin	46	Chief Human Resources Officer
Mr. Liu Jianfeng	43	Chief Financial Officer
Mr. Niu Yunfeng	46	Chief Information Officer
Mr. Zhou Zhizhu	51	Senior Vice President
Ms. Wu Xiaojing	52	Senior Vice President
Mr. Jiang Chaoxing	49	Senior Vice President
Ms. Su Li	48	Senior Vice President
Ms. Liang Hongyu	40	Joint Financial Controller and Company Secretary

Ms. Zhang Jin, aged 46, is the Chief Human Resources Officer of the Company. She is responsible for the human resources management and general administration work, etc. She graduated from Renmin University of China with a Bachelor's Degree in Economics and a Master's Degree in Management. Prior to joining the Group in 2016, she served as the Chief Administrative Officer of Shanda Games, the Senior Vice President of Shanda Network Group, the Vice President of Human Resources of Shanda Group and the Vice President of Human Resources of Lenovo Group. She has extensive experience in corporate management.

Mr. Liu Jianfeng, aged 43, is currently the Chief Financial Officer of the Company. He is responsible for finance, legal affairs, financial management and mergers and acquisitions of the Company. He received a Bachelor's Degree in Economics from the Central University of Finance and Economics and a Master's Degree in Law from China University of Political Science and Law from 1995 to 2003. He then received an MBA and a Master's Degree in Law from Boston College from 2012 to 2014. He is a member of the CPA Australia. He held key financial management positions in several companies in the oil and gas industry in the past 10 years prior to joining the Group. He served as the Executive President and Financial Controller of Geo-Jade Petroleum Corporation (a company listed on the Shanghai Stock Exchange, stock code: 600759). From 2014 to 2016, he held various positions in Fosun International Limited (stock code: 656.HK), including Chief Financial Officer of its energy group, General Manager of its oil and gas business unit, and Executive Director and Chief Financial Officer of Roc Oil Company Limited. He also served as the International M&A Manager of CNOOC, Commercial Controller and Financial Representatives of several upstream projects from 2008 to 2012. He has extensive experience in financial management, asset restructuring, mergers and acquisitions in the oil and gas industry, and participated in a number of large- scale multinational M&A transactions. Mr. Liu also served in leading law firms in the PRC, and is a qualified PRC lawyer and corporate legal consultant. He has over 20 years' experience in financial management, asset management, onshore and offshore mergers and acquisitions and investment.

Mr. Niu Yunfeng, aged 46, is the Chief Information Officer of the Company. He assists the CEO and President of the Company for the implementation of management restructuring of the Group. He obtained a Master's Degree in Business Administration from Renmin University of China in 2003. He joined the Group in 2003, and held general manager positions in various subsidiaries and participated in works related to strategic performance management, hence accumulated extensive experience in business management and smart operation.

Mr. Zhou Zhizhu, aged 51, is the Senior Vice President of the Company. He is responsible for digital transformation work of the Group. He obtained a Bachelor's Degree in Thermal Engineering from Beijing University of Aeronautics and Astronautics in 1990, and then obtained a Master's Degree in Corporate Management from Wuhan University in 2001. Prior to joining the Group in 2019, he served in Hunan Thermal Power, Shanghai Electric Group, China Southern Power Grid and GCL Group. He has extensive experience in digital technology and integrated energy projects.

Ms. Wu Xiaojing, aged 52, is the Senior Vice President of the Company. She is responsible for the marketing and sales of Guangdong, Fujian and Hunan provincial companies and the cultural building of the Company. She graduated from the China People's Police University (formerly known as The Chinese People's Armed Police Force Academy) in 1990 with a Bachelor of Laws in Immigration Inspection and obtained an executive Master's Degree in business administration from Beijing University in 2011. Prior to joining the Group in 2004, she served in the Southern China branch of Beckman Coulter, Inc. and was responsible for the business development in the region. Ms. Wu has extensive experience in the business operation and market development for energy companies.

Mr. Jiang Chaoxing, aged 49, is the Senior Vice President of the Company. He is responsible for the integrated energy business, and the marketing and sales of Inner Mongolia, Heilongjiang and Liaoning provincial companies. He graduated from The Northeast Electric Power University in 2010 with a major in Project Management and obtained a Master's Degree subsequently. Prior to joining the Group in 2017, he served in Shenwu Technology Group Corp Co., Ltd. And Heilongjiang Chenergy Investment Group Company Limited as the Deputy General Manager, and in Datang Qitaihe Power Generation Co., Ltd as the General Manager. He has extensive experience in market development and integrated management.

Ms. Su Li, aged 48, is the Senior Vice President of the Company. She is responsible for the marketing and sales of Zhejiang and Shanghai provincial companies. She graduated from Shanghai Jiao Tong University in 2015 and obtained an Executive Master's Degree in Business Administration. After joining the Group in 2002, she held deputy general manager and general manager positions of various subsidiaries. Based on her outstanding business development performance, she was promoted as the regional general manager and was responsible for the sales and marketing in Zhejiang Province, as well as the business expansion of industrial parks projects. She has extensive experience in business operation and market development for energy companies.

COMPANY SECRETARY

Ms. Liang Hongyu, aged 40, is the Joint Financial Controller and Company Secretary of the Company. She is responsible for investor relations management and the implementation of good corporate governance. She joined the Group in 2011 and prior to being appointed as the Company Secretary, she was the Deputy General Manager and General Counsel of ENN Finance Company Limited (a subsidiary of the Company). She has over 14 years of experience in relation to capital market transactions and legal work. She holds a Master's Degree in International Business and Corporate Law from the University of Lancaster in England and she is a PRC qualified lawyer.

DIRECTORS' REMUNERATION

The Directors' emoluments are subject to the recommendations of the remuneration committee and the approval of our Board of Directors (the "Board"). The emoluments are determined by the Board with reference to Directors' duties, responsibilities and performance and the results of our Company.

During the years ended December 31, 2017, 2018 and 2019 and the six months ended June 30, 2019 and 2020, the aggregate amount of remuneration paid and/or payable by us to our Directors was RMB26.1 million, RMB27.5 million, RMB35.4 million, RMB11.5 million and RMB13.7 million, respectively.

BOARD COMMITTEES

Audit Committee

The major responsibilities of the Audit Committee include making recommendation to the Board on the appointment, re-appointment and removal of the external auditor, approving the remuneration and terms of engagement of the external auditor, and addressing any questions of its resignation or dismissal; reviewing and monitoring the external auditor's independence and objectivity and the effectiveness of the audit process in accordance with applicable standards; developing and implementing policy on engaging the external auditor to supply non-audit services; reviewing the external auditors' management letter and the management's response thereto; monitoring the integrity of the annual reports and accounts and interim reports of the Company and reviewing significant financial reporting judgements contained therein; and reviewing the effectiveness of the Group's risk management and internal control systems.

In discharging its duties, the Audit Committee is provided with sufficient resources and is authorized by the Board to obtain outside legal or other independent professional advice at our expense on any matters within its terms of reference which have been published on our websites (http://www.ennenergy.com).

The Audit Committee consists of four members all of whom are Independent Non-executive Directors. Mr. Law Yee Kwan, Quinn is the Chairman and the three other members are Mr. Ma Zhixiang, Mr. Yuen Po Kwong and Ms. Yien Yu, Catherine. The committee meets the external auditor and senior management of the Company regularly. During 2020, the Audit Committee held three meetings to review the consolidated financial statements of the Group for the year ended December 31, 2019, the continuing connected transactions of the Group for the year ended December 31, 2019 under the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules") and the condensed consolidated financial statements for the Group for the period ended June 30, 2020; discussed with the external auditor the impact of any changes in accounting policies; considered the re-appointment of the external auditor and made recommendations to the Board; reviewed the effectiveness of the Group's risk management and internal control systems, and made recommendations to the Board; and assessed whether there were adequate resources, staff qualifications and experience, training programmes and budget of the Company's accounting, financial reporting and internal audit functions provided by the Management.

Remuneration Committee

The Remuneration Committee undertakes to, among other matters, make recommendations to the Board about the framework or board policy and structure for the remuneration of the Chief Executive Officer, Chairman, Executive Directors and senior management of our Company with the objective of ensuring that such persons are provided with appropriate incentives to encourage enhanced performance and to reward individual contributions to the success of our Company. The Remuneration Committee also determines, within the terms of the policy adopted by the Board and in consultation with the Chairman and Chief Executive Officer as appropriate, the individual specific remuneration package of each Executive Director and member of senior management, including benefits in kind, pension rights, bonuses, incentive payments, share options and compensation payments, including any compensation payable for loss or termination of their office or appointment.

No Director or member of senior management shall be involved in any decision as to their own remuneration. The remuneration of a Non-executive Director who is a member of the Remuneration Committee shall be a matter for other members of the Remuneration Committee. The Remuneration Committee's terms of reference have been posted on our website (http://www.ennenergy.com).

The Remuneration Committee currently consists of four members, all of which are Independent Non-Executive Directors. Mr. Yuen Po Kwong, an Independent Non-executive Director, is the chairman of the Remuneration Committee. The Committee includes three other Independent Non-executive members who are Mr. Ma Zhixiang and Mr. Law Yee Kwan, Quinn and Ms. Yien Yu Yu, Catherine. In 2020, the Remuneration Committee has (among others) reviewed the policy and structure of remuneration for all Directors and senior management of the Company; considered and approved the remuneration of the Management of the Company; reviewed the fees of the independent non-executive directors of the Company; and approved the remuneration packages of directors appointed during the year, and made recommendations to the Board.

Nomination Committee

The responsibilities of the Nomination Committee include reviewing the structure, size, Board diversity and composition of the Board and making recommendations on changes to the Board to complement the Company's corporate strategy; identifying and selecting suitably qualified individuals to become members of the Board or making recommendations to the Board on the selection of individuals nominated for directorships; assessing the independence of Independent Non-executive Directors; and making recommendations to the Board on the appointment or re-appointment of Directors and succession planning for Directors, especially the Chairman and the Chief Executive Officer.

When the Nomination Committee considers it necessary or desirable to appoint a new member to the Board (whether to fill a casual vacancy or otherwise), each member of the Board may nominate suitable individuals as candidates of members of the Board for the decision of the Board. The Nomination Committee's terms of reference have been posted on our website (http://www.ennenergy.com).

The Nomination Committee currently consists of six members, the majority of whom are Independent Non-Executive Directors. Mr. Wang Yusuo, an Executive Director, is the Chairman of the Nomination Committee. The Committee includes a Non-executive Director, Mr. Jin Yongsheng and four Independent Non-executive Directors, Mr. Ma Zhixiang, Mr. Yuen Po Kwong, Mr. Law Yee Kwan, Quinn and Ms. Yien Yu Yu, Catherine. One Nomination Committee meeting was held in 2020 to review the structure, size and composition (including the skills, knowledge and experience) of the Board and make recommendations on any proposed changes to the Board to complement the Company's corporate strategy; to consider the need for identifying individuals suitably qualified to become Directors and selected or made recommendations to the Board on the selection of individuals nominated for directorships; to assess the independence of Independent Non-executive Directors; and to make recommendation to the Board on retirement plan of the Directors.

DIRECTORS' INTERESTS

As of June 30, 2020, the interests and short positions of each Director and chief executive of the Company in the shares, underlying shares and debentures of the Company and its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance ("**SFO**")) as recorded in the register required to be kept under section 352 of Part XV of the SFO or as otherwise notified to the Company and the Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers ("**Model Code**"), Appendix 10 to the Rules Governing the Listing of Securities ("**Listing Rules**") on the Stock Exchange, were as follows:

Name of Director	Capacity	Personal interests	Corporate interests	Total interests in shares	Interests in underlying shares pursuant to share options	Total aggregate interests in shares and underlying shares	Approximate percentage of the Company's total issued shares
Wang Yusuo ("Mr. Wang")	Beneficial owner and interest of controlled corporation	289,600	369,175,534[1]	369,465,134	1,060,000	370,525,134	32.91%
Han Jishen	Beneficial owner	—	—	—	574,300	574,300	0.05%
Zhang Yuying	Beneficial owner	—	—	—	242,525	242,525	0.02%
Wang Dongzhi	Beneficial owner	30,000	—	30,000	647,000	677,000	0.06%
Wang Zizheng	Beneficial owner	—	—	—	420,000	420,000	0.04%
Jin Yongsheng	Beneficial owner	10,000	—	10,000	142,000	152,000	0.01%
Ma Zhixiang	Beneficial owner	—	—	—	60,000	60,000	0.01%
Yuen Po Kwong	Beneficial owner	—	—	—	120,000	120,000	0.01%
Law Yee Kwan, Quinn	Beneficial owner	—	—	—	120,000	120,000	0.01%
Yien Yu Yu, Catherine	Beneficial owner	106,000	—	106,000	60,000	166,000	0.01%

1 Such shares are beneficially owned by Mr. Wang and Ms. Zhao Baoju ("Ms. Zhao"), the spouse of Mr. Wang through 100% controlled corporations, including Langfang City Natural Gas Company Limited ("LCNG"), ENN Investment Holdings Company Limited ("EIH"), ENN Group International Investment Limited ("EGII") and Essential Investment Holding Limited ("EIHL").

DIRECTOR'S RIGHT TO ACQUIRE SHARES

The Company has adopted the "2012 Scheme" of the share option schemes pursuant to an ordinary resolution passed at an annual general meeting of the Company held on June 26, 2012.

The purpose of the share option scheme is to provide incentives for participants to perform their best in achieving our goals and allow them to enjoy the results of our Company attained through their efforts and contribution. Pursuant to the share option scheme, our Directors may, at their absolute discretion, invite any employee or Executive Director or any member of our Group, or any employee, partner or director of any business consultant, joint venture partner, financial advisor or legal advisor of and to any member of our Group, to take up options at HK$1 on each grant to subscribe for shares at an exercise price equal to at least the highest of (a) the closing price of the shares on the Hong Kong Stock Exchange on the date of grant; (b) the average closing price of the shares on the Hong Kong Stock Exchange for the five trading days immediately preceding the date of grant: and (c) the nominal value of a share.

The maximum number of shares in respect of which options may be granted under the share option scheme may not exceed 30% of the issued share capital of our Company from time to time. Unless approved by shareholders of our Company, the total number of shares issued and to be issued upon exercise of the options granted to each participant (including both exercised and outstanding options) in any 12-month period must not exceed 1% of the shares of our Company in issue. Where any further grant of options to a participant would result in the shares issued and to be issued upon exercise of all options granted and to be granted to such person (including exercised, cancelled and outstanding options) in the 12-month period up to and including the date of such further grant representing in aggregate over 1% of the shares in issue, such further grant must be separately approved by shareholders of our Company in a general meeting with such participant and his associates abstaining from voting.

Pursuant to our share option schemes, we have granted options to subscribe for our ordinary shares in favor of certain Directors, the details of which are the follows:

Name of Director	Date of grant	Exercise period (Note 1)	Exercise price (HK$)	Number of shares subject to outstanding options as at January 1, 2020	Exercised during the period (Note 2)	Lapsed during the period (Note 2)	Reclassified during the period (Note 2)	Number of shares subject to outstanding options as at June 30, 2020
Wang Yusuo	09.12.2015	01.04.2017–08.12.2025	40.34	145,000	—	—	—	145,000
	09.12.2015	01.04.2018–08.12.2025	40.34	145,000	—	—	—	145,000
	09.12.2015	01.04.2019–08.12.2025	40.34	145,000	—	—	—	145,000
	09.12.2015	01.04.2020–08.12.2025	40.34	145,000	—	—	—	145,000
	28.03.2019	01.04.2021–27.03.2029	76.36	160,000	—	—	—	160,000
	28.03.2019	01.04.2022–27.03.2029	76.36	160,000	—	—	—	160,000
	28.03.2019	01.04.2023–27.03.2029	76.36	160,000	—	—	—	160,000
Cheung Yip Sang (Notes 3&4) . .	09.12.2015	01.04.2018–08.12.2025	40.34	133,000	—	—	(133,000)	—
	09.12.2015	01.04.2019–08.12.2025	40.34	133,000	—	—	(133,000)	—
	09.12.2015	01.04.2020–08.12.2025	40.34	133,000	—	(83,000)	(50,000)	—
	28.03.2019	01.04.2021–27.03.2029	76.36	120,000	—	—	(120,000)	—
	28.03.2019	01.04.2022–27.03.2029	76.36	120,000	—	—	(120,000)	—

Name of Director	Date of grant	Exercise period (Note 1)	Exercise price (HK$)	Number of shares subject to outstanding options as at January 1, 2020	Exercised during the period (Note 2)	Lapsed during the period (Note 2)	Reclassified during the period (Note 2)	Number of shares subject to outstanding options as at June 30, 2020
	28.03.2019	01.04.2023–27.03.2029	76.36	120,000	—	—	(120,000)	—
Han Jishen (Note 3) . .	09.12.2015	01.04.2018–08.12.2025	40.34	17,375	—	—	—	17,375
	09.12.2015	01.04.2019–08.12.2025	40.34	105,250	—	—	—	105,250
	09.12.2015	01.04.2020–08.12.2025	40.34	105,250	—	(13,575)	—	91,675
	28.03.2019	01.04.2021–27.03.2029	76.36	120,000	—	—	—	120,000
	28.03.2019	01.04.2022–27.03.2029	76.36	120,000	—	—	—	120,000
	28.03.2019	01.04.2023–27.03.2029	76.36	120,000	—	—	—	120,000
Zhang Yuying (Note 3) .	09.12.2015	01.04.2019–08.12.2025	40.34	25	—	—	—	25
	09.12.2015	01.04.2020–08.12.2025	40.34	42,500	—	—	—	42,500
	28.03.2019	01.04.2021–27.03.2029	76.36	66,600	—	—	—	66,600
	28.03.2019	01.04.2022–27.03.2029	76.36	66,700	—	—	—	66,700
	28.03.2019	01.04.2023–27.03.2029	76.36	66,700	—	—	—	66,700
Wang Dongzhi (Note 3) .	09.12.2015	01.04.2017–08.12.2025	40.34	40,500	—	—	—	40,500
	09.12.2015	01.04.2018–08.12.2025	40.34	95,500	—	—	—	95,500
	09.12.2015	01.04.2019–08.12.2025	40.34	95,500	—	—	—	95,500
	09.12.2015	01.04.2020–08.12.2025	40.34	95,500	—	—	—	95,500
	28.03.2019	01.04.2021–27.03.2029	76.36	106,600	—	—	—	106,600
	28.03.2019	01.04.2022–27.03.2029	76.36	106,700	—	—	—	106,700
	28.03.2019	01.04.2023–27.03.2029	76.36	106,700	—	—	—	106,700
Wang Zizheng (Note 3) .	09.12.2015	01.04.2017–08.12.2025	40.34	15,000	—	—	—	15,000
	09.12.2015	01.04.2018–08.12.2025	40.34	15,000	—	—	—	15,000
	09.12.2015	01.04.2019–08.12.2025	40.34	15,000	—	—	—	15,000
	09.12.2015	01.04.2020–08.12.2025	40.34	15,000	—	—	—	15,000
	28.03.2019	01.04.2021–27.03.2029	76.36	120,000	—	—	—	120,000
	28.03.2019	01.04.2022–27.03.2029	76.36	120,000	—	—	—	120,000
	28.03.2019	01.04.2023–27.03.2029	76.36	120,000	—	—	—	120,000
Jin Yongsheng (Notes 3 & 5)	09.12.2015	01.04.2017–08.12.2025	40.34	—	—	—	35,500	35,500
	09.12.2015	01.04.2018–08.12.2025	40.34	—	—	—	35,500	35,500
	09.12.2015	01.04.2019–08.12.2025	40.34	—	—	—	35,500	35,500
	09.12.2015	01.04.2020–08.12.2025	40.34	—	—	—	35,500	35,500
Ma Zhixiang	09.12.2015	01.04.2018–08.12.2025	40.34	6,700	(6,700)	—	—	—

Name of Director	Date of grant	Exercise period (Note 1)	Exercise price (HK$)	Number of shares subject to outstanding options as at January 1, 2020	Exercised during the period (Note 2)	Lapsed during the period (Note 2)	Reclassified during the period (Note 2)	Number of shares subject to outstanding options as at June 30, 2020
	09.12.2015	01.04.2019–08.12.2025	40.34	15,000	(15,000)	—	—	—
	09.12.2015	01.04.2020–08.12.2025	40.34	15,000	(15,000)	—	—	—
	28.03.2019	01.04.2021–27.03.2029	76.36	20,000	—	—	—	20,000
	28.03.2019	01.04.2022–27.03.2029	76.36	20,000	—	—	—	20,000
	28.03.2019	01.04.2023–27.03.2029	76.36	20,000	—	—	—	20,000
Yuen Po Kwong	09.12.2015	01.04.2017–08.12.2025	40.34	15,000	—	—	—	15,000
	09.12.2015	01.04.2018–08.12.2025	40.34	15,000	—	—	—	15,000
	09.12.2015	01.04.2019–08.12.2025	40.34	15,000	—	—	—	15,000
	09.12.2015	01.04.2020–08.12.2025	40.34	15,000	—	—	—	15,000
	28.03.2019	01.04.2021–27.03.2029	76.36	20,000	—	—	—	20,000
	28.03.2019	01.04.2022–27.03.2029	76.36	20,000	—	—	—	20,000
	28.03.2019	01.04.2023–27.03.2029	76.36	20,000	—	—	—	20,000
Law Yee Kwan, Quinn .	09.12.2015	01.04.2017–08.12.2025	40.34	15,000	—	—	—	15,000
	09.12.2015	01.04.2018–08.12.2025	40.34	15,000	—	—	—	15,000
	09.12.2015	01.04.2019–08.12.2025	40.34	15,000	—	—	—	15,000
	09.12.2015	01.04.2020–08.12.2025	40.34	15,000	—	—	—	15,000
	28.03.2019	01.04.2021–27.03.2029	76.36	20,000	—	—	—	20,000
	28.03.2019	01.04.2022–27.03.2029	76.36	20,000	—	—	—	20,000
	28.03.2019	01.04.2023–27.03.2029	76.36	20,000	—	—	—	20,000
Yien Yu Yu, Catherine .	28.03.2019	01.04.2020–27.03.2029	76.36	15,000	—	—	—	15,000
	28.03.2019	01.04.2021–27.03.2029	76.36	15,000	—	—	—	15,000
	28.03.2019	01.04.2022–27.03.2029	76.36	15,000	—	—	—	15,000
	28.03.2019	01.04.2023–27.03.2029	76.36	15,000	—	—	—	15,000
Total.				4,113,100	(36,700)	(96,575)	(534,000)	3,445,825

Notes:

(1) The vesting period of the share options is from the date of grant until the commencement of the exercise period.

(2) "Period" refers to the period from January 1, 2020 to June 30, 2020.

(3) The vesting of share options is subject to the fulfilment of performance target.

(4) Mr. Cheung Yip Sang retired and did not re-elect himself in the annual general meeting of the Company held on May 13, 2020. The 676,000 share options granted to him had been reclassified to share options held by employees.

(5) Mr. Jin Yongsheng was appointed as a non-executive director of the Company on 16 March 2020. The 142,000 share options granted to him had been reclassified from share options held by employee to share options held by directors.

As of June 30, 2020, the interests and short positions of every person, other than our directors, in the shares and underlying shares of our Company as recorded in the register required to be kept under section 336 of Part XV of the SFO were as follows:

Name of shareholder	Capacity	Total interests in the Company	Respective interests in share according to share options	Total aggregate interests in shares and underlying shares (Note 7)	Approximate percentage of the Company's total issued share capital
Mr. Wang.	Beneficial owner and interest of controlled corporation	369,465,134 (Notes1, 2, 3, 4, 5 & 6)	1,060,000 (Note 5)	370,525,134 (L)	32.91%
Ms. Zhao	Interest of controlled corporation and interest of spouse	369,465,134 (Notes1, 2, 3, 4, 5 & 6)	1,060,000 (Note 5)	370,525,134 (L)	32.91%
LCNG.	Interest of controlled corporation	369,175,534 (Notes 1, 2 & 3)	—	369,175,534 (L)	32.79%
EIH	Interest of controlled corporation	369,175,534 (Notes1 & 2)	—	369,175,534 (L)	32.79%
EGII.	Beneficial owner and interest of controlled corporation	369,175,534 (Notes 1 & 6)	—	369,175,534 (L)	32.79%
ENN Ecological Holdings Co., Ltd . . .	Beneficial owner	369,175,534 (Note 6)	—	369,175,534 (L)	32.79%
The Capital Group Companies, Inc.	Beneficial owner	154,195,536	—	154,195,536 (L)	13.70%
JPMorgan Chase & Co. .	Interest of controlled corporation, investment manager, person having a security interest in shares, trustee and approved lending agent	102,096,433	—	102,096,433 (L) (including 1,759,754 (S) 85,638,783 (P))	9.07%
BlackRock, Inc.	Interest of controlled corporation	67,511,042	—	67,511,042 (L) (including 30,800 (S))	6.00%
Mitsubishi UFJ Financial Group, Inc	Interest of controlled corporation	57,905,500	—	57,905,500 (L)	5.14%

Notes:

(1) Of these shares, 39,926,534 shares are held by EIHL (a company which is wholly-owned by EGII), EGII is deemed to be interested in the shares in which EIHL is interested. EGII is beneficially owned as to 50% by Mr. Wang and 50% by Ms. Zhao, the spouse of Mr. Wang.

(2) On November 30, 2018, Mr. Wang and Ms. Zhao entered into an equity entrustment agreement with EIH, pursuant to which each of Mr. Wang and Ms. Zhao entrusts EIH to manage their respective shareholding of 50% in EGII till December 31, 2040. Pursuant to the agreement, EGII is controlled by EIH. Accordingly, EIH is deemed to be interested in the shares in which EGII is interested in (1) above.

(3) EIH is a wholly-owned subsidiary of LCNG, LCNG hence is deemed to be interested in the shares in which EIH is interested in (1) and (2) above.

(4) LCNG is 100% beneficially owned by. Mr. Wang and Ms. Zhao, hence they are deemed to be interested in the shares in which LCNG is interested in (1), (2) and (3) above.

(5) As Mr. Wang's spouse, Ms. Zhao is deemed as holding Mr. Wang's interests in shares.

(6) Pursuant to the sale and purchase agreement entered into between EGII and its wholly-owned subsidiary EIHL and ENN Ecological Holdings Co., Ltd on September 9, 2019, EGII intends to transfer all of the 369,175,534 shares in the Company held directly and indirectly to ENN Ecological Holdings Co., Ltd., subject to the completion by the fulfillment of the precedent conditions.

(7) (L) represents Long Position; (S) represents Short Position; (P) represents Lending Pool.

RELATED PARTY TRANSACTIONS

We enter into transactions with certain of our subsidiaries, investee companies and other related parties in the ordinary course of business. It is our policy to conduct these transactions on normal commercial terms and on an arm's-length basis.

As a listed company on the Hong Kong Stock Exchange, we are subject to the requirements of Chapter 14A of the Listing Rules, which require certain "connected transactions" with "connected persons" be approved by a company's independent shareholders. Each of our related party transactions disclosed hereunder that constitutes a connected transaction within the meaning of the Listing Rules requiring shareholder approval has been so approved, or otherwise exempted from compliance under Chapter 14A of the Listing Rules.

Apart from the related party balances and equity transactions with related party as of and for the year ended December 31, 2017, 2018 and 2019 as stated in our audited consolidated financial statements, the following table sets forth our material transactions between us with our related parties for the periods indicated:

	Year ended December 31,			
	2017	2018	2019	
	RMB million	*RMB million*	*RMB million*	*USD million*
Nature of Transaction associates:				
Associates:				
Sales of gas to	355	482	576	82
Sales of materials to	288	237	284	40
Provision of gas transportation services to	3	—	1	0
Provision of gas transportation services by	14	9	28	4
Purchase of equipment from	1	—	3	0
Purchase of gas from	235	311	282	40
Loan interest received from	10	22	24	3
Deposit interest paid to	2	2	2	0
Provision of supporting services by	1	—	—	—
Provision of supporting services to	1	2	8	1
Lease of vehicles to	—	1	—	—
Purchase of equity interest from	—	—	52	7
Provision of construction and installation services to	—	—	32	5
Joint ventures:				
Sales of gas to	1,234	1,580	1,546	219
Sales of materials to	125	220	281	40
Purchase of gas from	2,454	3,308	3,961	561
Provision of gas transportation services to	362	379	388	55
Loan interest received from	63	60	42	6
Loan interest paid to	40	36	4	1
Provision of construction and installation services to	80	—	—	—
Provision of supporting services to	7	33	21	3
Purchase of equipment from	4	6	23	3
Deposit interest paid to	9	12	13	2
Provision of proprietary services to	30	20	—	—
Provision of construction services by	33	29	23	3
Provision of gas transportation services by	1	—	—	—
Provision of supporting services by	1	2	2	0

	Year ended December 31,			
	2017	2018	2019	
	RMB million	*RMB million*	*RMB million*	*USD million*
Lease of premises from	1	1	—	—
Lease of vehicles to	2	2	2	0
Provision of energy efficiency technology services to	—	—	2	0
Provision of technology services by	—	—	7	1
Companies controlled by Mr. Wang:				
Transactions exempt from shareholders' approval under Chapter 14A of the Listing Rules:				
Provision of energy efficiency technology services by	218	188	—	—
Purchase of equipment from	26	122	52	7
Provision of information technology services by	256	279	139	20
Purchase of LNG from	12	669	1,313	186
Provision of LNG terminal usage services by	—	—	131	19
Provision of construction service by	861	1,079	1,263	179
Purchase of equity interest from	—	—	100	14
Transactions fully exempt from shareholders' approval, annual review and all disclosure requirements under Chapter 14A of the Listing Rules:				
Sale of materials to	31	42	43	6
Sales of gas, gasoline and diesel to	8	12	13	2
Provision of construction and installation service to	11	11	7	1
Provision of property management services by	16	17	17	2
Provision of property management services to	1	—	1	0
Lease of premises to	4	3	4	1
Lease of premises from	4	3	7	1
Provision of supporting services by	64	56	51	7
Provision of supporting services to	3	9	54	8
Purchase of outsourcing services by	31	44	55	8
Provision of electronic business services by	1	1	4	1
Provision of technology services to	4	42	52	7
Provision of research and development services to	—	—	10	1
Provision of energy efficiency technology services to	—	—	6	1
Purchase of property from	23	—	—	—
Compensation of key management personnel of the Company:				
Short-term employee benefits	19,764	24,128	22,145	3,134
Post-employment benefits	134	174	348	49
Share based payments	6,171	3,207	12,935	1,831
Total	26,069	27,509	35,428	5,014

Mr. Wang, the chairman, an Executive Director and a controlling shareholder of our Company as of the date hereof, and/or various of Mr. Wang's associates is/are entitled to the exercise of 30% or more of the voting power at any general meeting of various companies, a Wang Family Company or the

Wang Family Companies. The "Wang Family Companies" are companies controlled (entitled to exercise, or control the exercise of, 30% or more of the voting power at any general meeting of the relevant company) by Mr. Wang and/or his associates (including Ms. Zhao, a controlling shareholder of our Company and the spouse of Mr. Wang), thereby being connected persons of our Company.

Continuing Connected Transactions

The following is a brief description of our major continuous connected transactions in 2019:

Master Equipment Purchasing and Modification Services Agreement

On November 30, 2018, we entered into a Master Equipment Purchasing and Modification Services Agreement with EIH. This agreement commenced on January 1, 2019 and is due to expire on December 31, 2021, whereby the Wang Family Companies agreed to provide us with equipment as well as equipment modification and enhancement services. The annual cap for the year ended December 31, 2019 was RMB180 million and the transaction sum for the year ended December 31, 2019 was RMB52 million. The annual caps for the years ending December 31, 2020 and 2021 are RMB216 million and RMB259 million respectively.

Master Construction Services Agreement

On November 30, 2018, we entered into a Master Construction Services Agreement with EIH. This agreement commenced on January 1, 2019 and is due to expire on December 31, 2021, whereby the Wang Family Companies agreed to provide us with engineering design and construction services. The annual cap for the year ended December 31, 2019 was RMB1,442 million and the transaction sum for the year ended December 31, 2019 was RMB1,263 million. The annual caps for the years ending December 31, 2020 and 2021 are RMB1,669 million and RMB1,828 million respectively.

Master Information Technology Services Agreement

On November 30, 2018, we entered into a Master Information Technology Services Agreement with EIH. This agreement commenced on January 1, 2019 and is due to expire on December 31, 2021, whereby the Wang Family Companies agreed to provide us with information technology services. The annual cap for the year ended December 31, 2019 was RMB304 million and the transaction sum is RMB139 million. The annual caps for the years ending December 31, 2020 and 2021 are RMB318 million and RMB357 million respectively.

Master LNG Purchasing Agreement

On September 28, 2018, we entered into a Master LNG Purchasing Agreement with LCNG. The agreement commenced on October 1, 2018 and is due to expire on December 31, 2020, whereby the Wang Family Companies agreed to provide us with LNG supply. The annual cap is RMB1,665 million and the transaction sum for the year ended December 31, 2019 was 1,313 million. The annual cap for the year ending December 31, 2020 is RMB1,665 million.

Master LNG Terminal Usage Services

On September 28, 2018, we entered into a Master LNG Terminal Usage Services Agreement with LCNG. The agreement commenced on October 1, 2018 and is due to expire on December 31, 2028, whereby the Wang Family Companies agreed to provide us with LNG terminal usage services to enable us to receive imported LNG through Zhoushan LNG Terminal. The annual cap for the year ended December 31, 2019 was RMB 685 million and the transaction sum for the year ended December 31, 2019 was RMB131 million. The annual cap for the each of the years ending December 31,2020 to 2028 is RMB714 million.

DESCRIPTION OF OTHER MATERIAL INDEBTEDNESS

To fund our existing projects and to finance our working capital requirements, we have in the past issued certain debt securities as well as borrowed money from various banks. As of June 30, 2020, our total borrowings, including the 2011 Senior Notes, the 2017 Bonds, the 2018 Club Loan (as defined below) and the 2019 Corporate Bonds (as defined below), amounted to RMB20,720 million. We set forth below a summary of the material terms and conditions of these loans and other indebtedness.

The 2011 Senior Notes

On 13 May 2011, we entered into an indenture (the "2011 Indenture") pursuant to which we issued an aggregate principal amount of US$750,000,000 senior notes due 2021. As of June 30, 2020, we had a total amount of US$365,543,000 principal amount of 2011 Senior Notes outstanding. Our 2011 Senior Notes are listed on the Singapore Exchange Securities Trading Limited.

Interest

The 2011 Senior Notes bear interest at a rate of 6.00 per cent. per annum. Interest is payable semi-annually in arrear.

Covenants

Subject to certain conditions and exceptions, the 2011 Senior Notes contains certain covenants, restricting us and each of the related restricted subsidiaries from, among other things:

- creating liens;
- entering into sale and leaseback transactions; and
- merging or consolidating with another company.

Events of Default

The 2011 Indenture contains certain customary events of default, including default in the payment of principal or of any premium on the 2011 Senior Notes when such payments become due and payable, default in payment of interest which continues for 30 days, and other events of default substantially similar to the Events of Default under the Indenture. If an event of default occurs and is continuing, the trustee under the 2011 Indenture at its sole discretion may, and if so requested in writing by the holders of at least 25% of the outstanding 2011 Senior Notes, shall declare the principal of, premium, if any, and accrued and unpaid interest, if any, on the 2011 Senior Notes to be immediately due and payable.

Change of Control

Upon the occurrence of certain events of change of control, we will make an offer to repurchase the outstanding 2011 Senior Notes at a purchase price equal to 101% of their principal amount plus any accrued and unpaid interest, if any, to the repurchase date.

Maturity and Redemption

The maturity date of the 2011 Senior Notes is May 13, 2021. At any time prior to the maturity date, we may redeem the 2011 Senior Notes, in whole or in part, at a redemption price equal to 100% of the principal amount of the 2011 Senior Notes, plus a premium as of, and any accrued and unpaid interest, if any, to the redemption date.

Additionally, if under the 2011 Indenture we would become obligated to pay certain additional amounts as a result of certain changes in specified tax law, we may redeem the 2011 Senior Notes in whole, but not in part, at a redemption price equal to 100% of the principal amount of the 2011 Senior Notes, plus any accrued and unpaid interest, subject to certain exceptions.

The 2017 Bonds

On 24 July 2017, we entered into a trust deed (the "2017 Trust Deed") pursuant to which we issued an aggregate principal amount of US$600,000,000 senior bonds due 2022. As of June 30, 2020, we had a total amount of US$600,000,000 principal amount of 2017 Bonds outstanding. Our 2017 Bonds are listed on the Hong Kong Stock Exchange.

Interest

The 2017 Bonds bear interest at a rate of 3.25 per cent. per annum. Interest is payable semi-annually in arrear.

Covenants

Subject to certain conditions and exceptions, the 2017 Bonds contains certain covenants, restricting us and each of the related restricted subsidiaries from, among other things:

- creating liens; and
- merging or consolidating with another company.

Events of Default

The 2017 Trust Deed contains certain customary events of default, including default in the payment of principal or of any premium on the 2017 Bonds when such payments become due and payable, default in payment of interest which continues for 14 days, and other events of default substantially similar to the Events of Default under the Indenture. If an event of default occurs and is continuing, the trustee under the 2017 Trust Deed at its sole discretion may, and if so requested in writing by the holders of at least 25% of the outstanding 2017 Bonds or if so directed by an extraordinary resolution shall (provided that in any such case the trustee under the 2017 Trust Deed shall first have been indemnified and/or secured and/or prefunded to its satisfaction) declare the principal of, premium, if any, and accrued and unpaid interest, if any, on the 2017 Bonds to be immediately due and payable.

Change of Control

Upon the occurrence of certain events of change of control, we will make an offer to repurchase the outstanding 2017 Bonds at a purchase price equal to 101% of their principal amount plus any accrued and unpaid interest, if any, to the repurchase date.

Maturity and Redemption

The maturity date of the 2017 Bonds is July 24, 2022. At any time prior to the maturity date, we may redeem the 2017 Bonds, in whole but not in part, at a make whole price as of, and any accrued and unpaid interest, if any, to (but excluding) the redemption date.

Additionally, if under the 2017 Trust Deed we have or would become obligated to pay certain additional amounts as a result of certain changes in specified tax law, we may redeem the 2017 Bonds in whole, but not in part, at a redemption price equal to 100% of the principal amount of the 2017 Bonds, plus any interest accrued to the date fixed for redemption, subject to certain exceptions.

The 2018 Club Loan

On 23 November 2018, we entered into a US$300 million club loan agreement with six banks for a term of three years (the "2018 Club Loan"), with Westpac Banking Corporation serving as coordinator.

Interest and Repayment

The amount of interest to be paid on the outstanding amount of the loan will be the aggregate of (i) the applicable margin of 1.0 per cent. per annum and (ii) LIBOR. The repayment of the loan will be made on 23 November 2021.

Covenants

Pursuant to the terms of the 2018 Club Loan, we have agreed to certain financial covenants, including but not limited to the following, each as defined under the 2018 Club Loan:

- Consolidated Tangible New Worth shall not at any time be less than RMB10,000,000,000;
- Consolidated Net Debt shall not at any time exceed 3.0 times Consolidated EBITDA; and
- Consolidated EBITDA in respect of any Relevant Period shall be or shall exceed 5.0 times Consolidated Finance Charges for that Relevant Period.

Events of Default

The 2018 Club Loan contains certain customary events of default, including insolvency and breaches of the terms of the 2018 Club Loan. Upon the occurrence of an event of default which is continuing, the agent may, and shall if so directed by the majority lenders terminate all or part of the commitments and/or demand immediate repayment of all or part of the loans and any accrued interest.

The 2019 Corporate Bonds

One of our wholly owned subsidiaries, Xinao (China) Gas Investment Company Limited, or Xinao (China), (新奧(中國)燃氣投資有限公司) issued three tranches of corporate bonds in 2019 (together, the "2019 Corporate Bonds").

On January 22, 2019, Xinao (China) issued corporate bonds with a face value of RMB500,000,000. These corporate bonds are unsecured, carries an interest rate of 4.19 per cent. per annum and is payable on January 22, 2022.

On March 8, 2019, Xinao (China) issued corporate bonds with a face value of RMB1,000,000,000. These corporate bonds are unsecured, carries an interest rate of 4.20 per cent. per annum and is payable on March 8, 2022.

On November 11, 2019, Xinao (China) issued corporate bonds with a face value of RMB600,000,000. These corporate bonds are unsecured, carries an interest rate of 3.98 per cent. per annum and is payable on November 12, 2022.

Bank and Other Loans (Fixed and Floating Rate)

We have entered into loan agreements with various banks and other institutions. As of June 30, 2020, the aggregate outstanding amount under these loans totaled approximately RMB11,812 million (US$1,672 million), RMB8,041 million (US$1,138 million) of which was due within one year and RMB3,771 million (US$534 million) of which was due after one year.

The principal amounts outstanding under the project loans generally bear interest at: (i) fixed rates ranging from 0.93% to 7.50% or (ii) floating rates calculated by reference to the relevant bank's benchmark interest rate per annum. Floating interest rates generally are subject to review by the lending banks annually. Interest payments are payable either quarterly, semi-annually and annually and must be made on each payment date as provided in the particular loan agreement.

PRC Bank and Other Loans (Fixed and Floating Rate)

Certain of our PRC subsidiaries have entered into loan agreements with various PRC banks and other institutions. These loans are project loans to finance the construction of our projects and have terms ranging from 4 months to 15 years. As of June 30, 2020, the aggregate outstanding amount under these loans totaled approximately RMB4,895 million (US$693 million), RMB3,248 million (US$460 million) of which was due within one year and RMB1,647 million (US$233 million) of which was due after one year. Our project loans are typically secured by land use rights, properties and rights to receive gas connection and gas supply fee income as well guaranteed by certain of our other PRC subsidiaries. The Notes will be structurally subordinated to these loans and any other indebtedness incurred by our PRC subsidiaries.

Interest

The principal amounts outstanding under the project loans generally bear interest at: (i) fixed rates ranging from 2.05% to 7.50% or (ii) floating rates calculated by reference to the relevant bank's benchmark interest rate per annum. Floating interest rates generally are subject to review by the lending banks annually. Interest payments are payable either quarterly, semi-annually and annually and must be made on each payment date as provided in the particular loan agreement. As of June 30, 2020, the weighted average interest rate on the aggregate outstanding amount of our debts was 3.4% per annum.

Covenants

Under these project loans, many of our subsidiary borrowers have agreed, among other things, not to take the following actions without first obtaining the relevant lenders' prior consent:

- create encumbrances on any part of their property or assets or deal with their assets in a way that may adversely affect their ability to repay their loans;

- grant guarantees to any third parties that may adversely affect their ability to repay their loans;

- make any major changes to their corporate structures, such as entering into joint ventures, mergers and acquisitions and reorganizations; and

- alter the nature or scope of their business operations in any material respect.

Events of Default

The loans contain certain customary events of default, including insolvency and breaches of the terms of the loan agreements. The banks are entitled to terminate their respective agreements and/or demand immediate repayment of the loans and any accrued interest upon the occurrence of an event of default.

Guarantee and Security

Certain of our PRC subsidiaries have entered into guarantee agreements with the PRC banks in connection with some of the project loans pursuant to which these subsidiaries have guaranteed all liabilities of the subsidiary borrowers under these project loans. Further, as of June 30, 2020, RMB640 million (US$91 million) of the loans were secured by land use rights, properties, rights to receive gas connection and gas supply fee income held by the subsidiary borrowers.

DESCRIPTION OF THE NOTES

The Notes will be issued pursuant to an indenture to be dated as of September 17, 2020 among the Company and HSBC Bank USA, National Association as trustee (the "Trustee"), paying agent, transfer agent and registrar. A copy of this offering memorandum, the Notes and the Indenture will be available for inspection at the issuer services office of the Trustee. The holders of the Notes will be bound by, and be deemed to have notice of, all the provisions of the Indenture.

The following summaries of certain provisions of the Notes and the Indenture are subject to, and are qualified in their entirety by reference to, the detailed provisions of the Notes and the Indenture. Terms and expressions used in this section and not otherwise defined shall have the meanings given to such terms in the Notes and the Indenture. This section does not restate those agreements in their entirety. Whenever particular sections or defined terms of the Indenture not otherwise defined herein are referred to, such sections or defined terms are incorporated herein by reference.

General

The Notes will be issued in an initial aggregate principal amount of US$750,000,000 and will mature on September 17, 2030, unless the Notes are redeemed earlier pursuant to the terms of the Indenture.

The Notes will bear interest at the rate of 2.625% per annum. Interest on the Notes will accrue from September 17, 2020 or from and including the most recent Interest Payment Date (as defined below) to which interest has been paid or provided for, to and excluding the next Interest Payment Date or the maturity date, payable semi-annually in arrear on March 17 and September 17 and in each year (each, an "Interest Payment Date"), commencing on March 17, 2021, to the persons in whose names the Notes are registered at the close of business (whether or not a Business Day) on March 2 and September 2, respectively (each an "Interest Record Date") immediately preceding an Interest Payment Date. Interest shall be calculated on the basis of a 360-day year consisting of twelve 30-day months and, in the case of an incomplete month, the actual number of days elapsed.

In any case where the due date of payment of the principal of or interest on the Notes or the date fixed for redemption of the Notes is not a Business Day (as defined below), then payment of principal or interest shall be made on the next succeeding Business Day, with the same force and effect as if made on the due date of payment or the date fixed for redemption, as the case may be, and no interest shall accrue for the period after such date. "Business Day" means a day in The City of New York, Hong Kong and the applicable place of payment other than a Saturday, Sunday or a day on which banking institutions are authorized or obligated by law or executive order to remain closed.

The Notes will not be entitled to the benefit of any sinking fund. The Notes shall be denominated in minimum principal amounts of US$200,000 and in integral multiples of US$1,000 in excess thereof.

The Notes will be the direct, unconditional, unsubordinated and unsecured obligations of the Company, and rank *pari passu* with all other unsecured and unsubordinated obligations of the Company (other than obligations preferred by applicable law) and senior in priority of payment and in all other respects to all other indebtedness of the Company that is designated as subordinate or junior in right of payment to the Notes.

The principal of, interest on, and all other amounts payable under, the Notes will be payable, and the Notes may be exchanged or transferred, at the office or agency of the Company, which initially will be the issuer services office of the Trustee currently located at 452 Fifth Avenue, New York, NY 10018, or at such other location or locations as the Company, in consultation with the Trustee, may designate.

The principal of and interest on the Notes will be made by wire transfer or otherwise in immediately available funds and payable in U.S. dollars or in such other coin or currency of the United States of America as of the time of payment is legal tender for the payment of public and private debts.

Payment of the principal of and interest on the Notes held through The Depository Trust Company ("DTC") will be credited to the respective accounts of the holders of the Notes with DTC or its participants, including Euroclear Bank SA/NV ("Euroclear") and Clearstream Banking, S.A. ("Clearstream, Luxembourg"). See "*—Notes; Delivery and Form.*"

Further Issues

The Notes will be issued in an initial aggregate principal amount of US$750,000,000. The Company may, however, from time to time, without the consent of the holders of the Notes, issue pursuant to the Indenture, additional notes having the same terms and conditions under the Indenture as the previously outstanding Notes in all respects, except for issue date, issue price, amount of the first payment of interest thereon, the timing for the NDRC Post-issue Filing, and to the extent necessary, certain temporary securities law transfer restrictions. Additional notes issued may be consolidated with and form a single series with the previously outstanding Notes; *provided, however,* that such additional notes may have the same CUSIP, ISIN, Common Code or other identifying number as the outstanding Notes only if such additional notes are fungible with such Notes for U.S. federal income tax purposes.

Additional Amounts

All payments of principal, premium and interest in respect of the Notes will be made free and clear of, and without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature ("Taxes") imposed, levied, collected, withheld or assessed by or on behalf of Cayman Islands, the PRC or any other jurisdiction in which the Company (or any successor to the Company) is organized or tax resident, in each case including any political subdivision, territory or possession thereof, any authority therein having power to tax or any area subject to its jurisdiction (each, a "Relevant Jurisdiction") or any jurisdiction from or through which any payment is made (together with Relevant Jurisdictions, each, a "Relevant Taxing Jurisdiction") unless such Taxes are required by law to be withheld or deducted. If any deduction or withholding for any present or future Taxes of the applicable Relevant Taxing Jurisdiction shall at any time be so required, the Company shall pay such additional amounts ("Additional Amounts") as will result (after deduction of such Taxes, including Taxes payable in respect of such Additional Amounts) in receipt by each holder of any Note of such amounts as would have been received by such holder with respect to such Note, as applicable, had no such withholding or deduction been required; *provided, however,* that no Additional Amounts shall be payable in respect of any Note:

(i) to a holder (or to a third party on behalf of a holder) who is liable to such Taxes in respect of such Note by reason of his having some connection with the Relevant Taxing Jurisdiction other than the mere holding of the Note;

(ii) which is surrendered (where required to be surrendered) more than 30 calendar days after the Relevant Date, except to the extent that the holder of it would have been entitled to such Additional Amounts on surrender of such Note for payment on the last day of such period of 30 calendar days. "Relevant Date" means whichever is the later of (a) the date on which such payment first becomes due and (b) if the full amount payable has not been received by the Trustee on or prior to such due date, the date on which, the full amount having been so received, notice to that effect shall have been given to the holders of the Notes;

(iii) to a holder (or to a third party on behalf of a holder) who would have been able to avoid such withholding or deduction by duly presenting the Note (where presentation is required) to another paying agent;

(iv) with respect to any Taxes that would not have been imposed but for the failure of the holder or beneficial owner to comply with a timely request of the Company addressed to the holder to provide certification or information concerning the nationality, residence or identity of the holder or beneficial owner of the Note, if due and timely compliance is required as a precondition to relief or exemption from the tax, duty assessment or governmental charge under the laws (not including treaties) of the Relevant Taxing Jurisdiction;

(v) with respect to any estate, inheritance, gift, sale, transfer, personal property or similar tax, assessment or other similar governmental charge;

(vi) with respect to any such Taxes payable otherwise than by deduction or withholding from payments under or with respect to any Note; or

(vii) with respect to any combination of taxes, duties, assessments or other governmental charges referred to in the preceding items (i) through (vi) above.

Notwithstanding any other provision of the Indenture, any amounts to be paid on the Notes by or on behalf of the Issuer will be paid net of any deduction or withholding imposed or required pursuant to an agreement described in Section 1471(b) of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), or otherwise imposed pursuant to Sections 1471 through 1474 of the Code (or any regulations thereunder or official interpretations thereof) or an intergovernmental agreement between the United States and another jurisdiction facilitating the implementation thereof (or any fiscal or regulatory legislation, rules or practices implementing such an intergovernmental agreement) (any such withholding or deduction, a "FATCA Withholding"). Neither the Issuer nor any other person will be required to pay any Additional Amounts in respect of FATCA Withholding.

Additional Amounts will not be paid with respect to any payment of the principal of or any premium or interest on the Notes to any holder of a Note who is a fiduciary or partnership or other than the sole beneficial owner of such payment to the extent that payment would be required by the laws of the Relevant Taxing Jurisdiction to be included in the income of a beneficiary or settlor with respect to the fiduciary, a member of that partnership or a beneficial owner who would not have been entitled to the Additional Amounts had that beneficiary, settlor, member or beneficial owner been the holder.

Whenever there is mentioned, in any context, the payment of principal, premium or interest in respect of any Note, such mention shall be deemed to include the payment of Additional Amounts provided for in the Indenture to the extent that, in such context, Additional Amounts are, were or would be payable in respect thereof pursuant to the Indenture.

The Company will use reasonable efforts to obtain certified copies of tax receipts evidencing the payment of any taxes so withheld or deducted from the taxing authorities of the Relevant Jurisdiction imposing such taxes, and if certified copies are not available, the Company will use reasonable efforts to obtain other evidence satisfactory to the Trustee. The Trustee shall make such certified copies or other evidence available to the holders of the Notes upon reasonable request to the Trustee.

Redemption

Unless earlier redeemed in the limited circumstances set forth below under "— Optional Redemption" and "— Optional Tax Redemption," the Notes will mature on September 17, 2030, at a price equal to 100% of the principal amount thereof and the Notes will not be otherwise redeemable at the option of the Company.

Optional Redemption

The Company may, at any time and from time to time redeem the Notes on any date (the "Optional Redemption Date"), in whole or in part, on not less than 30 nor more than 60 days' prior notice. The applicable Notes will be redeemable at (a) in the case of an Optional Redemption Date prior to June

17, 2030 (the date that is three months prior to the Maturity Date for the Notes), the greater of (1) 100% of the principal amount of the applicable Notes to be redeemed and (2) the sum of the present values of the remaining scheduled payments of principal and interest on the applicable Notes to be redeemed (not including interest accrued and unpaid to the date of redemption), discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of 12 months of 30 days each and, in the case of an incomplete month, the actual number of days elapsed) at the Adjusted Treasury Rate plus 50 basis points, plus accrued and unpaid interest on the applicable Notes to be redeemed, if any, to (but not including) the Option Redemption Date; or (b) in the case of an Optional Redemption Date on or after June 17, 2030 (the date that is three months prior to the Maturity Date for the Notes), 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest, if any, to, but not including, the Optional Redemption Date.

"*Adjusted Treasury Rate*" means, with respect to the Option Redemption Date, the rate per annum equal to the semi-annual equivalent yield in maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date.

"*Comparable Treasury Issue*" means the U.S. Treasury security having a maturity comparable to the remaining term of the Notes to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the Notes to be redeemed.

"*Comparable Treasury Price*" means, with respect to the Option Redemption Date:

(i) the average of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) on the third New York Business Day preceding the Option Redemption Date, as set forth in the most recently published statistical release designated "H.15(519)" or any successor publication which is published weekly by the Board of Governors of the Federal Reserve System and which establishes yields on actively traded United States Treasury securities adjusted to constant maturity under the caption "Treasury Constant Maturities," or any successor webpage, or, failing which, on Bloomberg pages PX1, PX2 and PX3, which establishes a yield for actively traded United States Treasury securities adjusted to constant maturity under the caption "Treasury Constant Maturities", with a maturity comparable to the Comparable Treasury Issue, (if no maturity falls within three months before or after such time period, yields for the two published maturities most closely corresponding to such time period shall be determined and the Adjusted Treasury Rate shall be interpolated or extrapolated from such yields on a straight-line basis, rounding to the nearest month); or as such aforesaid yield is displayed on the Reuters screen FRBCMT page (or such other page which may replace that page on that service or a successor service); or

(ii) if such release (or any successor release) is not published or does not contain such prices on such business day, (a) the average of the Reference Treasury Dealer Quotations for such Option Redemption Date, after excluding the highest and lowest of such Reference Treasury Dealer Quotations, or (b) if fewer than three such Reference Treasury Dealer Quotations are available, the average of all such quotations.

"*New York Business Day*" means any day (other than a Saturday or Sunday) on which banking institutions are open for general business in The City of New York, New York.

"*Quotation Agent*" means an independent investment bank selected and appointed by the Company and notified in writing to the Trustee and the paying agent.

"*Reference Treasury Dealer*" means each of any three investment banks of recognized standing that is a primary U.S. Government securities dealer in New York City, selected by the Company in good faith.

"*Reference Treasury Dealer Quotations*" means, with respect to each Reference Treasury Dealer and the Option Redemption Date, the average as determined by the Quotation Agent, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to such Quotation Agent by such Reference Treasury Dealer at 5:00 p.m. (New York time) on the third New York Business Day preceding such date of redemption.

Optional Tax Redemption

The Notes may be redeemed, at the option of the Company, in whole but not in part, upon notice as described below, at a redemption price equal to 100% of the principal amount thereof, together with accrued and unpaid interest to the date fixed for redemption and Additional Amounts, if any, if, as a result of any change in or amendment to the laws of a Relevant Jurisdiction or any regulations or rulings promulgated thereunder, or any change in the official interpretation or official application of such laws, regulations or rulings, which change or amendment (i) in the case of the Company is announced and becomes effective after the date of this offering memorandum and (ii) in the case of any successor to the Company that is organized or tax resident in a jurisdiction that is not a Relevant Jurisdiction as of the original issue date of the Notes is announced and becomes effective on or after the date such successor assumes the Company's obligations, under the Notes and the Indenture, the Company is or would be obligated to pay Additional Amounts with respect to the Notes as described above under "— *Additional Amounts*" if such obligation cannot be avoided by the Company taking reasonable measures available to it.

Notice of redemption of the Notes as provided above shall be given not less than 30 nor more than 60 calendar days prior to the date fixed for redemption, *provided* that no such notice of redemption shall be given earlier than 90 days prior to the earliest date on which the Company would be obligated to pay such Additional Amounts as payment in respect of the Notes then due. Notice having been given, the Notes shall become due and payable on the date fixed for redemption and will be paid at the redemption price, together with accrued interest to the date fixed for redemption and any Additional Amounts, at the place or places of payment and in the manner specified in the notice. From and after the date fixed for redemption, if moneys sufficient for the redemption of such Notes shall have been made available as provided in the Indenture for redemption on the date fixed for redemption, the Notes shall cease to bear interest, and the only right of the holders of the Notes shall be to receive payment of the redemption price, interest accrued to the date fixed for redemption and Additional Amounts, if any.

Prior to the giving of any notice of redemption, the Company shall deliver to the Trustee an opinion of external legal counsel of recognized standing in the Relevant Jurisdiction and an officers' certificate attesting to such change in tax law and obligation to pay Additional Amounts.

Redemption upon a Change of Control

Upon a Change of Control (as defined below), the holder of each Note will have the right, at such holder's option, to require the Company to redeem all, or some only (subject to the provision below) of such holder's Notes at a price in cash equal to 101% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest on the principal amount of the Notes being repurchased to but excluding the date of repurchase. Within 14 calendar days following the first day on which it becomes aware of the Change of Control, the Company shall give written notice to holders of the Notes and the Trustee specifying the procedure for exercise by holders of the Notes of their rights to require redemption of the Notes.

To exercise such right, the holder of the relevant Note must deposit at the specified office of the paying agent or any other paying agent a duly completed and signed notice of redemption, in the form for the time being current, obtainable from the specified office of the paying agent or any other paying agent (a "Put Exercise Notice"), together with the Certificate evidencing the Notes to be redeemed, by not later than 30 days following a Change of Control, or, if later, 30 days following the date upon which notice thereof is given to the holders of the Notes by the Company in accordance with "— *Notices*". The "Put Date" shall be the fourteenth day after the expiry of such period of 30 days as referred to above.

Once a Put Exercise Notice is delivered, it shall be irrevocable and the Company shall redeem the Notes that are the subject of such notice delivered; *provided* that, such holder shall have no right to require the Company to redeem such Notes to the extent that it would result in such holder holding an aggregate principal amount of Notes of less than US$200,000 immediately following the Put Date.

The Company will comply, to the extent applicable, with the requirements of applicable securities laws or regulations in connection with the repurchase of the Notes pursuant to this covenant.

"*Affiliate*" of any specified Person means any other Person, directly or indirectly, controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, "control", when used with respect to any Person, means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms "controlling" and "controlled" have meanings correlative to the foregoing; provided that under "— *Redemption upon a Change of Control*", beneficial ownership of 10% or more of the Voting Stock of a Person shall be deemed to be control.

"*Capital Stock*" means any and all shares, interests (including joint venture interests), equity participations or other equivalents (however designated) of capital stock of a corporation or any and all equivalent ownership interests in a Person (other than a corporation).

"*Change of Control*" means the occurrence, at any time, of any of the following:

(i) the Permitted Holders are the beneficial owners of less than 20% of the total voting power of the Voting Stock of the Company; or

(ii) any person or persons acting together is or becomes the beneficial owner, directly or indirectly, of total voting power of the Voting Stock of the Company greater than such total voting power held beneficially by the Permitted Holders; or

(iii) individuals who at the Issue Date constituted the board of directors of the Company (together with any new directors whose election or appointment by such board of directors or whose nomination for election by the shareholders of the Company was approved by a vote of not less than half of the directors then still in office who were either directors at the Issue Date or whose election or nomination for election was previously so approved) cease for any reason to constitute a majority of the board of directors of the Company then in office; or

(iv) the merger, amalgamation or consolidation of the Company with or into another Person (other than one or more Permitted Holders) or the merger or amalgamation of another Person (other than one or more Permitted Holders) with or into the Company, or the sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the assets of the Company and its Subsidiaries taken as a whole, to any person other than Permitted Holders or wholly owned Subsidiaries of the Company; or

(v) the approval by the shareholders of the Company of a plan or proposal for the liquidation or dissolution of the Company.

"*Permitted Holders*" means Mr. Wang Yusuo and Ms. Zhao Baoju and any Affiliate of any of them.

"*Subsidiary*" of any Person means (a) any company or other business entity of which that Person owns or controls (either directly or through one or more other Subsidiaries) more than 50% of the issued share capital or other ownership interest having ordinary voting power to elect directors, managers or trustees of such company or other business entity or (b) any company or other business entity which at any time has its accounts consolidated with those of that Person or which, under the law, regulations or generally accepted accounting principles of the jurisdiction of incorporation of such person from time to time of the Cayman Islands or Hong Kong, should have its accounts consolidated with those of that Person.

"*Voting Stock*" of a corporation means all classes of Capital Stock of such corporation then outstanding and normally entitled to vote in the election of directors.

Certain Covenants

Limitation on Liens

For so long as any Note remains outstanding, the Company shall not, and shall procure that none of its Principal Subsidiaries will, create or permit to subsist or arise any Lien upon the whole or any part of their respective present or future assets or revenues (including any uncalled capital) to secure any Relevant Indebtedness or to secure any guarantee or indemnity in respect of any Relevant Indebtedness except for Liens existing with respect to any Person or the property or assets of such Person acquired by the Company or any of its Principal Subsidiaries, at the time of such acquisition and not incurred in contemplation thereof, which liens or restrictions are not applicable to any Person or the property or assets of any Person other than such Person or the property or assets of such Person so acquired, and any extensions, refinancings, renewals or replacements thereof without, in any such case, making effective provision whereby the Notes will be secured at least equally and rateably with such Relevant Indebtedness (or any guarantee or indemnity in respect of such Relevant Indebtedness).

Consolidation, Merger and Sale of Assets

For so long as any Note remains outstanding, the Company shall not consolidate with, merge or amalgamate into or convey or transfer all or substantially all its property or assets to any Person (the consummation of any such event, a "Merger"), unless:

(i) the corporation formed by such Merger or the Person that acquired such properties and assets, if not the Company, shall expressly assume, by a supplemental indenture, all obligations of the Company, under the Indenture and the performance of every covenant and agreement applicable to it contained therein;

(ii) immediately after giving effect to any such Merger, no Event of Default, and no event which, after notice or lapse of time or both, may become an Event of Default shall have occurred or be continuing or would result therefrom; and

(iii) the successor (if not the Company) expressly agrees in a supplemental indenture that its jurisdiction of organization or tax residence (if not the Cayman Islands) will be added to the list of Relevant Jurisdictions.

Such Merger shall not be effective until the Company has delivered to the Trustee an officer's certificate stating that all requirements relating to such Merger have been complied with and that such Merger is authorized and permitted under the Indenture. The Trustee shall be entitled to rely on and shall be protected and shall incur no liability to any Holder for or in respect of any action taken, omitted or suffered in reliance upon such officer's certificate.

For purposes of this covenant, the conveyance or transfer of all or substantially all of the property or assets of one or more Subsidiaries of the Company, which property or assets, if held by the Company instead of such Subsidiaries, would constitute all or substantially all of the property or assets of the Company on a consolidated basis, shall be deemed to be the transfer of all or substantially all of the property or assets of the Company.

Reports, Statements as to Compliance, and Notices of Default

For so long as any Note remains outstanding, the Company shall file with the Trustee:

(i) as soon as they are available, but in any event within 120 calendar days after the end of the fiscal year of the Company (currently being December 31 of each year and the Company shall notify the Trustee in writing within 10 calendar days if there is any change to such fiscal year), copies of its financial statements in English (on a consolidated basis) in respect of such financial year (including a statement of income, balance sheet and cash flow statement) audited by a member firm of an internationally recognized firm of independent accountants; and

(ii) as soon as they are available, but in any event within 90 calendar days after the end of the first semi-annual fiscal period of the Company, copies of its unaudited financial statements in English (on a consolidated basis) in respect of such semi-annual period (including a statement of income, balance sheet and cash flow statement) prepared on a basis consistent with the audited financial statements of the Company and reviewed by a member firm of an internationally recognized firm of independent accountants;

provided that if at any time the shares of the Company are listed for trading on a recognized stock exchange, the Company shall file with the Trustee, as soon as they are available but in any event not more than 10 calendar days after any financial or other reports of the Company are filed with any recognized exchange on which the Company's shares are at any time listed for trading, true and correct copies of any financial or other report filed with such exchange in lieu of the reports identified in clauses (i) and (ii) above, if such financial or other report is in English.

For so long as any Note remains outstanding, the Company shall file with the Trustee, as soon as possible and in any event within 10 calendar days after the Company becomes aware of the occurrence thereof, written notice of the occurrence of any event or condition which constitutes, or which, after notice or lapse of time or both, would become, an Event of Default and an officer's certificate of the Company setting forth the details thereof and the action the Company is taking or proposes to take with respect thereto.

The Company will agree in the Indenture that, so long as the Notes remain outstanding and are "restricted securities" within the meaning of Rule 144(a)(3) under the Securities Act, the Company, during any period in which it is not subject to and in compliance with Section 13 or 15(d) of the Exchange Act or it is not exempt from such reporting requirements pursuant to and in compliance with Rule 12g3-2(b) under the Exchange Act, will furnish, upon the request of any holder of a Note or of a beneficial interest in a Note, such information as is specified in paragraph (d)(4) of Rule 144A, to such holder or beneficial owner or to a prospective purchaser of a Note or a beneficial interest in a Note who is a qualified institutional buyer within the meaning of Rule 144A, in order to permit compliance by the holder or beneficial owner with Rule 144A in connection with the resale of the Note or beneficial interest in the Note in reliance on Rule 144A.

NDRC Post-issue Filing

The Company shall file or cause to be filed with the NDRC, within 10 Registration Business Days after the settlement date, the requisite information and documents in accordance with the Circular on

Promoting the Reform of the Administrative System on the Issuance by Enterprises of Foreign Debt Filings and Registrations (國家發展改革委關於推進企業發行外債備案登記制管理改革的通知(發改外資[2015]2044號)) issued by the NDRC and effective as of 14 September 2015 and any implementation rules as issued by the NDRC from time to time (the "NDRC Post-issue Filing").

(a) The Company shall within 10 Registration Business Days after submission of the NDRC Post-issue Filing, provide the Trustee with (i) a certificate in English substantially in the form set out in the Indenture signed by an Authorized Officer of the Company confirming the submission of the NDRC Post-issue Filing; and (ii) a copy of the NDRC Post-issue Filing setting out the particulars of filing, certified as a true and complete copy of the original by an Authorized Officer of the Company (the items specified in (i) and (ii) together, the "Filing Documents"). In addition, the Company shall, within 10 Registration Business Days after the documents comprising the Filing Documents are delivered to the Trustee, give notice to the holders of the Notes confirming the submission of the NDRC Post-issue Filing.

(b) The Trustee shall have no obligation or duty to monitor or ensure the submission of the NDRC Post-issue Filing on or before the deadline referred to above or to verify the accuracy, validity and/or genuineness of any certificate, confirmation, or other documents in relation to or in connection with the NDRC Post-issue Filing, and shall not be liable to holders of the Notes or any other person for not doing so.

Other Covenants

In addition, the Indenture will (subject to exceptions, qualifications and materiality thresholds, where appropriate) contain covenants regarding the Company's payment of taxes and other claims and the maintenance of an agent for service of process in the Borough of Manhattan, The City of New York.

Events of Default

Each of the following shall constitute an "Event of Default" under the Indenture for the Notes:

(i) the Company fails to pay (i) principal, or premium (if any) on any Note or (ii) interest on any Note and the default continues for a period of 14 days;

(ii) the Company does not perform or comply with any one or more of its other obligations in the Notes and the Indenture (other than those referred to the paragraph immediately above), which default is either incapable of remedy or, if remediable, is not remedied within 30 days after written notice of such default shall have been given to the Company by the Trustee;

(iii) any failure to pay upon final maturity when due or, as the case may be, within any originally applicable grace period, (i) the principal of any Indebtedness of the Company or any of its Subsidiaries, (ii) any other present or future Indebtedness of the Company or any of its Subsidiaries for or in respect of moneys borrowed or raised becomes due and payable prior to its stated maturity by reason of any event of default (howsoever described) or (iii) any failure to pay any amount payable by the Company or any of its Subsidiaries under any guarantee or indemnity in respect of any Indebtedness of any other Person thereof, when such amount is due; provided that, no such event set forth in (i), (ii) or (iii) shall constitute an Event of Default unless the aggregate outstanding Indebtedness to which all such events relate exceeds US$70,000,000 (on the basis of the middle spot rate for the relevant currency against the US dollar as quoted by any leading bank selected by the Company on the day on which this paragraph operates);

(iv) a distress, attachment, execution, seizure before judgment or other legal process is levied, enforced or sued out on or against any part of the property, assets or revenues of the Company aggregating in excess of US$70,000,000 (on the basis of the middle spot rate for the relevant currency against the US dollar as quoted by any leading bank selected by the Company on the day on which this paragraph operates) and is not discharged or stayed within 30 days;

(v) the Company or any of its Principal Subsidiaries is (or is, or could be, deemed by law or a court to be) insolvent or bankrupt or unable to pay its debts, stops, suspends or threatens to stop or suspend, payment of all or a material part of its debts, proposes or makes any agreement for the deferral, rescheduling or other readjustment of all of its debts (or of a material part which it will or might otherwise be unable to pay when due), proposes or makes a general assignment or an arrangement or composition with or for the benefit of the relevant creditors in respect of any of such debts or a moratorium is agreed or declared in respect of or affecting all or a material part of the debts of the Company or any of its Principal Subsidiaries or an administrator or liquidator of the Company, or any of its Principal Subsidiaries or the whole or a material part of the assets and revenue of the Company or any of its Principal Subsidiaries is appointed;

(vi) an order is made or an effective resolution passed for the liquidation, winding-up or dissolution, judicial management or administration of the Company or any of its Principal Subsidiaries (other than a voluntary winding-up on a solvent basis), or the Company or any of its Principal Subsidiaries ceases or threatens to cease to carry on all or substantially all of its business or operations, except in each case for the purpose of and followed by a reconstruction, amalgamation, reorganization, merger or consolidation whereby the assets or undertakings of such Principal Subsidiary are vested in or otherwise transferred to the Company or any of its Principal Subsidiaries;

(vii) any event occurs which under the laws of any relevant jurisdiction has an analogous effect to any of the events referred to in any of (iv) to (vi) above (all inclusive);

(viii) any action, condition or thing (including the obtaining or effecting of any necessary consent, approval, authorization, exemption, filing, license, order, recording or registration) at any time required to be taken, fulfilled or done in order (i) to enable the Company lawfully to enter into, exercise its rights and perform and comply with its obligations under the Notes and the Indenture, (ii) to ensure that those obligations are legally binding and enforceable and (iii) to make the Notes and the Indenture admissible in evidence in the courts of New York is not taken, fulfilled or done; or

(ix) it is or will become unlawful for the Company to perform or comply with any one or more of its obligations under any of the Notes and the Indenture.

If an Event of Default (other than an Event of Default described in clause (v) or (vi) or (vii) when it relates to (v) or (vi) above) with respect to the Notes shall occur and be continuing, either the Trustee or the holders of at least 25% in aggregate principal amount of the Notes then outstanding by notice as provided in the Indenture may declare the principal amount of the Notes and any accrued and unpaid interest thereon to be due and payable immediately. If an Event of Default in clause (v) or (vi) or (vii) when it relates to (v) or (vi) above with respect to the Notes shall occur, the unpaid principal amount of all the Notes and any accrued and unpaid interest thereon will automatically, and without any action by the Trustee or any holder of the Notes, become immediately due and payable. After any such acceleration but before a judgment or decree based on acceleration has been obtained, the holders of at least a majority in aggregate principal amount of the Notes then outstanding may, under certain circumstances, rescind and annul such acceleration if all Events of Default, other than the nonpayment of accelerated principal, have been cured or waived as provided in the Indenture.

Subject to the provisions of the Indenture relating to the duties of the Trustee, in case an Event of Default shall occur and be continuing, the Trustee will be under no obligation to exercise any of its rights or powers under the Indenture at the request or direction of any of the holders of the Notes unless such holders shall have offered to the Trustee security and/or indemnity satisfactory to the Trustee. Subject to certain provisions, including those requiring security and/or indemnification of the Trustee, the holders of a majority in aggregate principal amount of the Notes then outstanding will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee with respect to the Notes. However, the Trustee may refuse to follow any direction that conflicts with applicable law or the Indenture, that may involve the Trustee in personal liability or cause it to expend or risk its own funds or otherwise incur any financial liability in following such direction and may take any other action it deems proper that is not inconsistent with any such direction received from holders. No holder of any Notes will have any right to institute any proceeding, judicial or otherwise, with respect to the Indenture, or for the appointment of a receiver or a trustee, or for any other remedy thereunder unless (i) such holder has previously given to the Trustee written notice of a continuing Event of Default with respect to the Notes, (ii) the holders of at least 25% in aggregate principal amount of the Notes then outstanding have made written request, and such holder or holders have offered to the Trustee indemnity and/or security satisfactory to the Trustee, to institute such proceeding as trustee and (iii) the Trustee has failed to institute such proceeding, and has not received from the holders of a majority in aggregate principal amount of the Notes then outstanding a direction inconsistent with such request, within 60 days after such notice, request or offer. However, such limitations do not apply to a suit instituted by a holder of a Note for the enforcement of the right to receive payment of the principal of or interest on such Note on or after the applicable due date specified in such Note.

The Trustee need not do anything to ascertain whether any Event of Default has occurred or is continuing and will not be responsible to holders or any other person for any loss arising from any failure by it to do so, and the Trustee may assume that no such event has occurred and that the Company is performing all their respective obligations under the Indenture and the related Notes unless the Trustee has received written notice of the occurrence of such event or facts establishing that the Company is not performing all of its obligations under the Indenture or the Notes.

"*incur*" means issue, create, assume, guarantee, incur or otherwise become liable for; and the terms "incurred" and "incurrence" have meanings correlative to the foregoing.

"*Indebtedness*" means, for purposes of this covenant only, with respect to any Person on any date of determination (without duplication), any outstanding indebtedness for or in respect of money borrowed (including bonds, debentures, notes or other similar instruments, whether or not listed); provided that Indebtedness shall not include any Indebtedness denominated in Renminbi that has a final maturity of less than one year from its date of incurrence or issuance.

Payments for Consent

Neither the Company nor any of its Subsidiaries will, directly or indirectly, pay or cause to be paid any consideration, whether by way of interest, fee or otherwise, to any holder of any Notes for or as an inducement to any consent, waiver or amendment of any of the terms or provisions of the Indenture or the Notes unless such consideration is offered to be paid or agreed to be paid to all holders of the Notes that consent, waive or agree to amend in the time frame set forth in the solicitation documents relating to such consent, waiver or agreement.

Modification and Waiver

The Indenture contain provisions permitting the Company and the Trustee, without the consent of the holders of the Notes, to execute supplemental indenture for certain enumerated purposes, including any amendment solely to conform the Indenture to this offering memorandum (as amended and supplemented) and, with the consent of the holders of not less than a majority in aggregate principal amount of the Notes then outstanding under the Indenture, to change or modify in any manner the rights of the holders of the Notes, provided that no such modification or amendment may, without the consent of all holders of the Notes, among other things:

(i) change the stated maturity of the Notes;

(ii) reduce the principal amount of or payments of interest on any such Note;

(iii) change any obligation of the Company to pay Additional Amounts;

(iv) change the currency or place of payment of the principal of or interest on any such Note;

(v) impair the right to institute suit for the enforcement of any payment due on or with respect to any such Note;

(vi) reduce the above stated percentage of outstanding Notes necessary to modify or amend the Indenture;

(vii) reduce the percentage of the aggregate principal amount of outstanding Notes necessary for waiver of compliance with certain provisions of the Indenture or for waiver of certain defaults;

(viii) reduce the premium payable upon the redemption or repurchase of any Note;

(ix) modify such provisions with respect to modification and waiver, which require the consent of the holders of the Notes as provided in the Indenture.

The holders of not less than a majority in aggregate principal amount of the Notes then outstanding may, on behalf of holders of all the Notes, waive compliance by the Company with certain restrictive provisions of the Indenture. The holders of not less than a majority in aggregate principal amount of the Notes may on behalf of all holders of the Notes waive any existing or past default under the Indenture for the Notes, except a continuing default in the payment of principal of, or interest on, any Note then outstanding or in respect of a covenant or provision which under such Indenture cannot be modified or amended without the consent of the holder of each Note then outstanding affected thereby. Any such waivers will be conclusive and binding on all holders of the Notes, whether or not they have given consent to such waivers, and on all future holders of such Notes, whether or not notation of such waivers is made upon such Notes. Any instrument given by or on behalf of any holder of a Note in connection with any consent to any such waiver will be irrevocable once given and will be conclusive and binding on all subsequent holders of such Note.

The consent of the holders of the Notes is not necessary to approve the particular form of any proposed amendment. It is sufficient if such consent approves the substance of the proposed amendment.

After an amendment described in the preceding paragraph becomes effective, the Company will deliver to the holders of such Notes and the Trustee a notice briefly describing such amendment. However, the failure to give such notice to all holders of such Notes, or any defect therein, will not impair or affect the validity of the amendment.

Defeasance and Discharge

The Indenture provides that, upon the conditions set forth therein, the Company (i) may be discharged from all of its obligations with respect to Notes (except for certain obligations to exchange or register the transfer of the Notes, to replace stolen, lost or mutilated Notes, to maintain paying agencies and to hold moneys for payment in trust and to pay Additional Amounts), or (ii) need not comply with certain restrictive covenants of the Notes (including those described under "— *Certain Covenants*") and the events under paragraphs (ii), (iii) and (iv) under "— *Events of Default*" shall not constitute an Event of Default under the Indenture), in each case upon the deposit in trust with the Trustee for the benefit of the holders of such Notes of money in U.S. dollars or U.S. Government Obligations (as defined below), or both, which, through the payment of principal and interest thereon in accordance with their terms, will provide money in an amount sufficient to pay the principal of and interest on the Notes (and any Additional Amounts in respect thereof) in accordance with the terms of the Indenture and the Notes. Such defeasance or discharge pursuant to clauses (i) and (ii) above may occur only if, among other things, the Company have delivered to the Trustee an opinion of independent legal counsel of recognized standing licensed to practice law in the United States to the effect that beneficial owners of such Notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such deposit, defeasance or discharge and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such deposit, defeasance or discharge had not occurred, which opinion of counsel in the case of defeasance described in (i) above must be based on a ruling received by the Company from the U.S. Internal Revenue Service or a published ruling of the U.S. Internal Revenue Service or other change in applicable U.S. federal income tax law after the original issue date of the Notes.

"*U.S. Government Obligations*" means direct obligations (or certificates representing an ownership interest in such obligations) of the United States of America (including any agency or instrumentality thereof) for the payment of which the full faith and credit of the United States of America is pledged and which are not callable at the issuer's option.

Prescription

Any moneys deposited with or paid to the Trustee or any paying agent of the Notes, or then held by the Company, in trust, for the payment of the principal of or interest on (or any Additional Amount payable in respect of) any Note and not applied but remaining unclaimed for two years after the date upon which such principal or interest shall have become due and payable, shall, upon the written request of the Company be repaid to the Company by the Trustee or such paying agent or (if then held by the Company) be discharged from such trust, unless otherwise required by mandatory provisions of applicable escheat or abandoned or unclaimed property law, and the holder of such Note shall, unless otherwise required by mandatory provisions of applicable escheat or abandoned or unclaimed property laws, thereafter look only to the Company for any payment which such holder may be entitled to collect, and all liability of the Trustee or any paying agent of the Notes with respect to such moneys shall thereupon cease.

Under New York law, any legal action upon the Notes must be commenced within six years after the payment thereof is due. Thereafter, the Notes will generally become unenforceable.

Concerning the Trustee

HSBC Bank USA, National Association will be the Trustee under the Indenture. The corporate trust and issuer services office of HSBC Bank USA, National Association is currently located at 452 Fifth Avenue, New York, NY, 10018, USA. The Company will appoint HSBC Bank USA, National Association as paying agent, transfer agent and registrar, located at 452 Fifth Avenue, New York, NY, 10018, USA.

The Indenture provides that the Trustee, except during the continuance of an Event of Default, undertakes to perform such duties and only such duties as are specifically set forth in the Indenture. If an Event of Default has occurred and is continuing, the Trustee will use the same degree of care and skill in its exercise of the rights and powers vested in it by the Indenture as a prudent person would exercise under the circumstances in the conduct of such person's own affairs. The Indenture also provide that the Trustee and any paying or other agent of the Notes, in their individual or any other capacity, may become the owner or pledgee of the Notes with the same rights it would have if it were not the trustee or such agent and may otherwise deal with the Company and receive, collect, hold and retain collections from the Company with the same rights it would have if it were not the trustee or such agent. All moneys received by the Trustee shall, until used or applied as provided in the Indenture, be held in trust thereunder for the purposes for which they were received and need not be segregated from other funds except to the extent required by law.

The Trustee will be under no obligation to exercise any rights or powers conferred under the Indenture for the benefit of the holders unless such holders have offered to the Trustee indemnity and/or security satisfactory to the Trustee against any loss, liability or expense. In the exercise of its duties, the Trustee shall not be responsible for the calculation or computation of any amount payable under the Notes or the verification of any such calculations or computations or any verification of the accuracy or completeness of any certification, opinion or other documents submitted to it by the Company.

Indemnification for Judgment Currency Fluctuations

To the fullest extent permitted by law, the obligations of the Company to any holder of the Notes under the Indenture or the Notes, as the case may be, shall, notwithstanding any judgment in a currency (the "Judgment Currency") other than U.S. dollars (the "Agreement Currency"), be discharged only to the extent that on the day following receipt by such holder or the Trustee, as the case may be, of any amount in the Judgment Currency, such holder or the Trustee, as the case may be, may in accordance with normal banking procedures purchase the Agreement Currency with the Judgment Currency. If the amount of the Agreement Currency so purchased is less than the amount originally to be paid to such holder or the Trustee, as the case may be, in the Agreement Currency the Company agrees, as a separate obligation and notwithstanding such judgment, to pay the difference and if the amount of the Agreement Currency so purchased exceeds the amount originally to be paid to such holder, such holder or the Trustee, as the case may be, agrees to pay to or for the account of the Company, as the case may be, such excess; provided that such holder or the Trustee, as the case may be, shall not have any obligation to pay any such excess as long as a default by the Company in its obligations under the Indenture or the Notes has occurred and is continuing, in which case such excess may be applied by such holder or the Trustee, as the case may be, to such obligations.

Governing Law and Consent to Jurisdiction

The Notes and the Indenture will be governed by and will be construed in accordance with the laws of the State of New York.

The Company will irrevocably submit to the non-exclusive jurisdiction of any New York state or United States federal court located in the Borough of Manhattan, The City of New York, New York (each a "New York Court") in any suit, action or proceeding arising out of or relating to the Indenture, the Notes or any transaction contemplated thereby, and will irrevocably waive, to the fullest extent permitted by applicable law, any objection to the venue of any such suit, action or proceeding in any such New York Court and any claim of an inconvenient forum.

The Company has appointed Law Debenture Corporate Services Inc., 801 2nd Avenue, Suite 403, New York, NY 10017, as agent for service of process with respect of any such suit, action or proceeding.

Waiver of Immunity

To the extent that the Company has or hereafter may acquire any immunity (sovereign or otherwise) from any legal action, suit or proceeding, from jurisdiction of any court or from set-off or any legal process (including any immunity from non-exclusive jurisdiction or from service of process or from any execution to satisfy a final judgment or from attachment or in aid of such execution or otherwise) with respect to itself or any of its assets or properties, the Company irrevocably waives, to the fullest extent permitted under applicable law, any such right of immunity or claim thereto which may now or hereafter exist, and agrees not to assert any such right or claim in any action or proceeding against it arising out of or based on the Notes or the Indenture.

Notices

Notices to holders of the Notes will be mailed to them (or the first named of joint holders) by first class mail (or, if first class mail is unavailable, by airmail) at their respective addresses in the register and will be deemed to have been given on the fourth Business Day after the date of mailing. So long as and to the extent that the Notes are represented by global notes and such global notes are held by DTC, notices to owners of beneficial interests in the global notes may be given by delivery of the relevant notice to DTC for communication by it to entitled account holders.

Notes; Delivery and Form

The statements set forth herein include summaries of certain rules and operating procedures of DTC, Euroclear and Clearstream, Luxembourg which will affect transfers of interests in the global notes.

The Notes sold in offshore transactions in reliance on Regulation S under the Securities Act will be initially in the form of one or more Regulation S global notes, fully registered without interest coupons, which will be deposited with HSBC Bank USA, National Association, as custodian for DTC (in such capacity, the "Custodian") and registered in the name of Cede & Co., as nominee of DTC, for the accounts of Euroclear and Clearstream, Luxembourg, as participants in DTC.

The Notes sold to qualified institutional buyers ("QIBs") in reliance on Rule 144A under the Securities Act will be issued initially in the form of one or more Rule 144A global notes, fully registered without interest coupons, which will be deposited with the Custodian for DTC and registered in the name of Cede & Co., as nominee of DTC.

The Notes will be issued in minimum denominations of US$200,000 and in integral multiples of US$1,000 in excess of that amount.

The Notes (including beneficial interests in the global notes) will be subject to certain restrictions on transfer set forth therein and in the Indenture and will bear a legend regarding such restrictions as set forth under "Transfer Restrictions." Under certain circumstances, transfers may be made only upon receipt by the Trustee of a written certification in the form(s) provided in the Indenture.

Beneficial interests in a Rule 144A global note may be transferred to a person who takes delivery in the form of an interest in a Rule 144A global note without any written certification from the transferor or the transferee. Beneficial interests in a Rule 144A global note may be transferred to a person who takes delivery in the form of an interest in a Regulation S global note only upon receipt by the Trustee of written certifications (in the form(s) provided in the Indenture) from the transferor to the effect that such transfer is being made to a to a person outside the United States or pursuant to Rule 144 under the Securities Act (if available).

Any beneficial interest in one of the global notes that is transferred to an entity who takes delivery in the form of an interest in the other global note will, upon transfer, cease to be an interest in such global note and become an interest in the other global note and, accordingly, will thereafter be subject to all transfer restrictions, if any, and other procedures applicable to beneficial interests in such other global note for as long as it remains such an interest.

Investors may hold their interests in the global notes directly through DTC, Clearstream, Luxembourg or Euroclear, as the case may be, if they are participants in such systems, or indirectly through organizations which are participants in such systems. Clearstream, Luxembourg and Euroclear will hold interests in the Regulation S global notes on behalf of their participants through customers' securities accounts in their respective names on the books of their respective depositaries, which are participants in DTC.

Transfers between participants in DTC (the "Participants") will be effected in the ordinary way in accordance with DTC rules. Transfers between participants in Clearstream, Luxembourg and Euroclear ("Clearstream Participants" and "Euroclear Participants," respectively) will be effected in the ordinary way in accordance with their respective rules and operating procedures.

Persons who are not Participants may beneficially own interests in the global notes held by DTC only through Participants or Indirect Participants (as defined below) (including Euroclear and Clearstream, Luxembourg). So long as Cede & Co., as the nominee of DTC, is the registered owner of the global notes, Cede & Co., for all purposes will be considered the sole holder of such Notes.

Payment of interest on and principal of the global notes will be made to Cede & Co., the nominee for DTC, as the registered owner of the global notes by wire transfer of immediately available funds. Neither the Company nor the Trustee will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in the global notes or for maintaining, supervising or reviewing any records relating to such beneficial ownership interest.

The Company has been informed by DTC that, upon receipt of any payment of interest on or the redemption price of the global notes, DTC will credit Participants' accounts with payments in amounts proportionate to their respective beneficial interests in the global notes as shown on the records of DTC. Payments of interest on and principal of the Notes held through Clearstream, Luxembourg or Euroclear will be credited to the cash accounts of Clearstream Participants or Euroclear Participants, as the case may be, in accordance with the relevant system's rules and procedures. Payments by Participants to owners of beneficial interests in the global notes held through such Participants will be the responsibility of such Participants, as is the case with securities held by broker-dealers, either directly or through nominees, for the accounts of customers and registered in "street name."

Because DTC can only act on behalf of Participants, who in turn act on behalf of Indirect Participants and certain banks, the ability of a person having a beneficial interest in the global notes to pledge such interest to persons or entities that do not participate in the DTC system, or to otherwise take actions in respect of such interest, may be affected by the lack of a physical certificate.

So long as the Notes are represented by global notes and such global notes are held on behalf of DTC or any other clearing system, such clearing system or its nominee will be considered the sole holder of the Notes represented by the applicable global notes for all purposes under the Indenture, including, without limitation, obtaining consents and waivers thereunder, and neither the Company nor the Trustee shall be affected by any notice to the contrary. Neither the Trustee nor the Company shall have any responsibility or obligation with respect to the accuracy of any records maintained by any clearing system or any Participant of such clearing system. The clearing systems will take actions on behalf of their Participants (and any such Participants will take actions on behalf of any Indirect Participants) in accordance with their standard procedures. To the extent that any clearing system acts upon the direction of the holders of the beneficial interests in the applicable global note and such beneficial holders give conflicting instructions, the applicable clearing system may take conflicting actions in accordance with such instructions.

DTC has advised the Company that it will take any action permitted to be taken by a holder of the Notes (including, without limitation, the presentation of the Notes for exchange) only at the direction of one or more Participants and only in respect of the principal amount of the Notes represented by the global note as to which such Participant or Participants has or have given such direction.

Clearstream, Luxembourg or Euroclear, as the case may be, will take any action permitted to be taken by a holder of the Notes (including, without limitation, the presentation of the Notes for exchange) on behalf of a Clearstream Participant or a Euroclear Participant only in accordance with its relevant rules and procedures and subject to its ability to effect such actions through DTC.

DTC has advised the Company as follows:

DTC is a limited purpose trust company organized under the laws of the State of New York, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the Uniform Commercial Code and a "Clearing Agency" registered pursuant to the provisions of Section 17A of the Exchange Act. DTC was created to hold securities for its Participants and facilitate the clearance and settlement of securities transactions between Participants through electronic book-entry changes in accounts of its Participants, thereby eliminating the need for the physical movement of certificates. Participants include securities brokers and dealers, banks, trust companies and clearing corporations and may include certain other organizations. Indirect access to the DTC system is available to others such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Participant, either directly or indirectly ("Indirect Participants").

Although DTC, Clearstream, Luxembourg and Euroclear have agreed to the foregoing procedures in order to facilitate transfers of interests in the global notes among participants of DTC, Clearstream, Luxembourg and Euroclear, they are under no obligation to perform or continue to perform such procedures, and such procedures may be discontinued at any time. Neither the Company nor the Trustee will have any responsibility for the performance by DTC, Clearstream, Luxembourg and Euroclear, or their respective Participants or Indirect Participants, of their respective obligations under the rules and procedures governing their operations.

Individual Notes

If DTC is at any time unwilling or unable to continue as depositary and a successor depositary is not appointed by the Company within 90 calendar days or if there shall have occurred and be continuing an Event of Default (as described above) with respect to the Notes, the Company will, if requested by any holder of a Note or Indirect Holder issue individual notes in certificated, fully registered form in exchange for the applicable portion of the global notes.

Subject to the transfer restrictions set forth on the individual notes in certificated form, the holder of such individual notes in certificated form may transfer or exchange such Notes by surrendering them at the corporate trust office of the Trustee. Prior to any proposed transfer of individual notes in certificated form (other than pursuant to an effective registration statement), the holder may be required to provide certifications and other documentation relating to the manner of such transfer and submit such certifications and other documentation to the Trustee as described under "— *Notes; Delivery and Form*" above. Upon the transfer, exchange or replacement of individual notes in certificated form not bearing the legend referred to under "Transfer Restrictions," the Trustee will deliver individual notes in certificated form that do not bear the legend. Upon the transfer, exchange or replacement of individual notes in certificated form bearing the legend, or upon specific request for removal of the legend on an individual note in certificated form, the Trustee will deliver only individual notes in certificated form that bear such legend or shall refuse to remove such legend, as the case may be, unless there is delivered to the Company such satisfactory evidence, which may include an opinion of counsel, as may reasonably be required by the Company that neither the legend nor the restrictions on transfer set forth therein are required to ensure compliance with the provisions of the Securities Act.

Certain Definitions

Set forth below are definitions of certain of the terms used herein. Additional terms are defined elsewhere above or in the Indenture.

"*Indebtedness*" of any Person means, at any date, without duplication, (i) any outstanding indebtedness for or in respect of money borrowed (including bonds, debentures, notes or other similar instruments, whether or not listed) that is evidenced by any agreement or instrument, excluding trade payables, (ii) all noncontingent obligations of such Person to reimburse any bank or other Person in respect of amounts paid under a letter of credit or similar instrument, and (iii) all Indebtedness of others guaranteed by such Person.

"*Lien*" means any mortgage, pledge, security interest, lien, hypothecation or other security arrangement or charge of any kind securing any obligation of any Person.

"*NDRC*" means the National Development and Reform Commission of the PRC or its local counterparts.

"*Person*" means any individual, corporation, partnership, joint venture, association, joint stock company, trust, unincorporated organization, government or any agency or political subdivision thereof or any other entity.

"*PRC*" means the People's Republic of China, which shall for the purpose of these covenants only, exclude the Hong Kong Special Administrative Region, the Macau Special Administrative Region and Taiwan.

"*Principal Subsidiary*" at any time shall mean one of the Company's Subsidiaries

(a) as to which one or more of the following conditions is/are satisfied:

   (i) its gross revenue or (in the case of a Subsidiary of the Company which itself has Subsidiaries) consolidated gross revenue attributable to the Company is at least 5% of the consolidated gross revenue of the Company; or

   (ii) its net profit or (in the case of a Subsidiary of the Company which itself has Subsidiaries) consolidated net profit attributable to the Company (in each case before taxation) is at least 5% of the consolidated net profit of the Company (before taxation); or

   (iii) its gross assets or (in the case of a Subsidiary of the Company which itself has Subsidiaries) consolidated gross assets attributable to the Company (in each case after deducting minority interests in Subsidiaries) are at least 5% of the consolidated gross assets of the Company (after deducting minority interests in Subsidiaries),

   in each case, as calculated by reference to the then latest audited financial statements (consolidated or, as the case may be, unconsolidated) of the Subsidiary of the Company and the then latest audited consolidated financial statements of the Company, *provided that*: (1) in the case of a Subsidiary of the Company acquired after the end of the financial period to which the then latest relevant audited financial statements relate, the reference to the then latest audited financial statements for the purposes of the calculation above shall, until audited financial statements for the financial period in which the acquisition is made are published, be deemed to be a reference to the financial statements adjusted to consolidate the latest audited financial statements of the Subsidiary in the financial statements; (2) if, in the case of a Subsidiary of the Company which itself has one or more Subsidiaries, no consolidated financial statements are prepared and audited, its consolidated gross revenue, net profit and gross assets shall be determined on the basis of *pro forma* consolidated financial statements of the relevant Subsidiary and its Subsidiaries prepared for this purpose; or (3) if the financial statements of a Subsidiary of the Company (not being a Subsidiary referred to in (1) above) are not consolidated with those of the Company then the determination of whether or not the Subsidiary is a Principal Subsidiary shall, if the Company requires, be based on a *pro forma* consolidation of its financial statements (consolidated, if appropriate) with the consolidated financial statements of the Company and its Subsidiaries;

(b) to which is transferred all or substantially all of the assets of the Subsidiary of the Company which immediately prior to the transfer was a Principal Subsidiary, *provided that*, the Principal Subsidiary which so transfers its assets shall forthwith upon such transfer cease to be a Principal Subsidiary and the Subsidiary to which the assets are so transferred shall cease to be a Principal Subsidiary at the date on which the first consolidated audited financial statements of the Company prepared as of a date later than such transfer are issued unless such Subsidiary would continue to be a Principal Subsidiary on the basis of such accounts by virtue of paragraph above (a) of this definition.

A certificate signed by an Authorized Officer of the Company as to whether or not a Subsidiary is a Principal Subsidiary shall be conclusive and binding on all parties in the absence of manifest error. Any such certificate shall be accompanied by a report by an internationally recognized firm of accountants addressed to the directors of the Company as to proper extraction and basis of the figures used by the Company in determining the Principal Subsidiaries of the Company and mathematical accuracy of the calculation.

"*Registration Business Day*" means a day, other than a Saturday, Sunday or public holiday, on which commercial banks are generally open for business in Beijing.

"*Relevant Indebtedness*" of any Person means any indebtedness incurred outside the PRC that is in the form of or represented by debentures, loan stock, bonds, notes, bearer participation certificates or other similar securities or instruments or by bills of exchange drawn or accepted for the purpose of raising money which are, or are issued with the intention on the part of the issuer thereof that they should be, quoted, listed, ordinarily dealt in or traded on any stock exchange or over the counter or on any other securities market (whether or not initially distributed by way of private placement) but shall not include indebtedness under any secured transferable loan facility (which term shall for these purposes mean any agreement for or in respect of indebtedness for borrowed money entered into with one or more banks and/or financial institutions whereunder rights and (if any) obligations may be assigned and/or transferred).

TAXATION

The following summary of certain Cayman Islands, Hong Kong, PRC and U.S. federal income tax consequences of the purchase, ownership and disposition of Notes is based upon applicable laws, regulations, rulings and decisions as of the date of this Offering Memorandum, all of which are subject to change (possibly with retroactive effect). This discussion does not purport to be a comprehensive description of all the tax considerations that may be relevant to a decision to purchase, own or dispose of the Notes and does not purport to deal with consequences applicable to all categories of investors, some of which may be subject to special rules. Persons considering the purchase of Notes should consult their own tax advisors concerning the tax consequences of the purchase, ownership and disposition of Notes, including such possible consequences under the laws of their country of citizenship, residence or domicile.

CAYMAN ISLANDS

The following is a discussion of certain Cayman Islands income tax consequences of an investment in the Notes. The discussion is a general summary of present law, which is subject to prospective and retroactive change. It is not intended as tax advice, does not consider any investor's particular circumstances, and does not consider tax consequences other than those arising under Cayman Islands law.

Under the existing Cayman Islands laws, payments of interest and principal on the Notes will not be subject to taxation in the Cayman Islands and no withholding will be required on the payment of interest and principal to any holder of the Notes, nor will gains derived from the disposal of the Notes be subject to Cayman Islands income or corporation tax. The Cayman Islands currently has no income, corporation or capital gains tax and no estate duty, inheritance tax or gift tax.

No stamp duty is payable in respect of the issue of the Notes. An instrument of transfer in respect of a Bond is stampable if executed in or brought into the Cayman Islands.

The Company has been incorporated under the laws of the Cayman Islands as an exempted company with limited liability and, as such, has obtained an undertaking from the Acting Governor in Council of the Cayman Islands Government as to tax concessions under the Tax Concessions Law (1999 Revision). In accordance with the provision of section 6 of The Tax Concessions Law (1999 Revision), the Governor in Council undertakes with the Company:

- that no Law which is hereafter enacted in the Cayman Islands imposing any tax to be levied on profits, income, gains or appreciations shall apply to the Company or its operations; and

- in addition, that no tax to be levied on profits, income, gains or appreciations or which is in the nature of estate duty or inheritance tax shall be payable, (i) on or in respect of the shares debentures or other obligations of the Company, or (ii) by way of the withholding in whole or part of any relevant payment as defined in Section 6(3) of the Tax Concessions Law (1999 Revision).

- These concessions shall be for a period of 20 years from August 29, 2000.

HONG KONG

Withholding Tax

No withholding tax is payable in Hong Kong in respect of payments of principal or interest on the Notes or in respect of any capital gains arising from the sale of the Notes.

Profits Tax

Hong Kong profits tax is chargeable on every person carrying on a trade, profession or business in Hong Kong in respect of profits arising in or derived from Hong Kong from such trade, profession or business (excluding profits arising from the sale of capital assets).

Interest on the Notes may be deemed to be profits arising in or derived from Hong Kong from a trade, profession or business carried on in Hong Kong in the following circumstances:

(i) interest on the Notes is derived from Hong Kong and is received by or accrues to a company, other than a financial institution, carrying on a trade, profession or business in Hong Kong;

(ii) interest on the Notes is derived from Hong Kong and is received by or accrues to a person, other than a company, carrying on a trade, profession or business in Hong Kong and is in respect of the funds of that trade, profession or business;

(iii) interest on the Notes is received by or accrues to a financial institution (as defined in the Inland Revenue Ordinance (Cap. 112) of Hong Kong (the "IRO")) and arises through or from the carrying on by the financial institution of its business in Hong Kong; or

(iv) interest on the Notes is received by or accrues to a corporation, other than a financial institution, and arises through or from the carrying on in Hong Kong by the corporation of its intra-group financing business (within the meaning of section 16(3) of the IRO).

Sums received by or accrued to a financial institution by way of gains or profits arising through or from the carrying on by the financial institution of its business in Hong Kong from the sale, disposal and redemption of Notes will be subject to Hong Kong profits tax. Sums received by or accrued to a corporation, other than a financial institution, by way of gains or profits arising through or from the carrying on in Hong Kong by the corporation of its intra-group financing business (within the meaning of section 16(3) of the IRO) from the sale, disposal or other redemption of Notes will be subject to Hong Kong profits tax.

Sums derived from the sale, disposal or redemption of the Notes will be subject to Hong Kong profits tax where received by or accrued to a person, other than a financial institution, who carries on a trade, profession or business in Hong Kong and the sum has a Hong Kong source unless otherwise exempted. The source of such sums will generally be determined by having regard to the manner in which the Notes are acquired and disposed of.

In certain circumstances, Hong Kong profits tax exemptions (such as concessionary tax rates) may be available. Investors are advised to consult their own tax advisers to ascertain the applicability of any exemptions to their individual position.

Stamp Duty

No Hong Kong stamp duty will be chargeable upon the issue or transfer of the Notes.

PRC

Under the EIT Law, an enterprise established outside of China with "de facto management organization" located within China will be considered a PRC "resident enterprise" for PRC tax purposes and consequently will be treated in a manner similar to a Chinese enterprise for enterprise income tax purposes. The implementing rules of the EIT Law define "de facto management body" as a management body that exercises "substantial and overall management and control over the production and operations, personnel, accounting, and properties" of the enterprise. In April 2018, the State Administration of Taxation specified certain criteria for the determination of the "de facto management bodies" for foreign enterprises that are controlled by PRC enterprises. However, no definition of "de facto management body" has been provided for enterprises established offshore by individuals or foreign enterprises such as the Company. Although it is unclear under the PRC tax law whether the Company will be deemed as having a PRC "de facto management body" located in China for PRC tax purposes, to date the Company has not received any notice from any PRC tax authority treating it as a PRC "resident enterprise" for PRC tax purposes.

Taxation on Interest Payment/Capital Gains

The EIT Law imposes a tax at the rate of 10% on interest payments and capital gains realized by an enterprise holder of Notes that is a "non-resident enterprise" which does not have an establishment or place of business in China or, where despite the existence of an establishment or place of business in China, the relevant interest or gain is not effectively connected with such establishment or place of business in China, to the extent such interest or capital gains are sourced within China. The IIT Law imposes a tax at the rate of 20% on interest payments and capital gains realized by a foreign individual who is neither domiciled nor resident in China, to the extent such interest or capital gains are sourced within China. Pursuant to these provisions of the EIT Law and the IIT Law, although the matter is unclear, if we are considered a PRC resident enterprise, interest payments and capital gains realized by non-resident enterprise holders and non-resident individual holders of the Notes may be treated as income derived from sources within China and be subject to the PRC tax described above (which, in the case of interest or redemption premium, may be withheld at source). Relevant PRC tax liability may be reduced under applicable tax treaties. However, it is unclear whether, if we were considered a PRC "resident enterprise", holders of our Notes could claim the benefit of income tax treaties or agreements entered into between China and other countries or areas. Relevant PRC tax liability may be reduced under applicable tax treaties, but investors may have administrative difficulties in obtaining the reduced PRC rates under tax treaties.

On March 23, 2016, the Ministry of Finance and the State Administration of Taxation of the PRC issued Circular 36, which introduced a new VAT from May 1, 2016. Under Circular 36, VAT is applicable where entities or individuals provide or receive certain services within China. The services potentially subject to VAT include the provision of financial services such as the provision of loans. Circular 36 further clarifies that "loans" refers to the activity of lending capital for another's use and receiving the interest income thereon. Based on the definition of "loans" under Circular 36, holders of the Notes may be treated as providing financial services in the form of loans to the Company for VAT purposes. In the event the Company is deemed to be a PRC resident enterprise by the PRC tax authorities, the holders of the Notes may be regarded as providing financial services within China and consequently, the Company may be obligated to withhold VAT at a rate of six per cent, plus related local levies, for payments of interest and certain other amounts on the Notes paid by the Company to Noteholders that are non-resident enterprises or individuals. VAT is unlikely to be applicable to any transfer of Notes between entities or individuals located outside China and therefore unlikely to be applicable to gains realized upon such transfers of Notes, but there is uncertainty as to the applicability of VAT if either the seller or buyer of Notes is located inside China. Circular 36 together with other laws and regulations pertaining to VAT are relatively new and the interpretation and enforcement of such laws and regulations involve uncertainties.

Stamp duty

No PRC stamp tax will be chargeable upon the issue or transfer (for so long as the register of holders of the Notes is maintained outside China and the issuance and the sale of the Notes is made outside China) of a Bond.

Certain U.S. Federal Income Tax Considerations[2]

The following is a summary of certain U.S. federal income tax consequences of the acquisition, ownership and disposition of Notes by a U.S. Holder (as defined below). This summary deals only with initial purchasers of Notes at the "issue price" (the first price at which a substantial amount of Notes are sold for money, excluding sales to underwriters, placement agents or wholesalers) in the initial offering that are U.S. Holders and that will hold the Notes as capital assets. The discussion does not cover all aspects of U.S. federal income taxation that may be relevant to, or the actual tax effect that any of the matters described herein will have on, the acquisition, ownership or disposition of Notes by particular investors (including consequences under the alternative minimum tax or net investment income tax), and does not address state, local, non-U.S. or other tax laws (such as estate or gift tax laws). This summary also does not discuss all of the tax considerations that may be relevant to certain types of investors subject to special treatment under the U.S. federal income tax laws (such as financial institutions, insurance companies, individual retirement accounts and other tax-deferred accounts, tax-exempt organizations, dealers in securities or currencies, investors that will hold the Notes as part of straddles, hedging transactions or conversion transactions for U.S. federal income tax purposes, persons that have ceased to be U.S. citizens or lawful permanent residents of the United States, investors holding the Notes in connection with a trade or business conducted outside of the United States, U.S. citizens or lawful permanent residents living abroad, U.S. holders that are required to take certain amounts into income no later than the time such amounts are reflected on an applicable financial statement or investors whose functional currency is not the U.S. dollar).

As used herein, the term "U.S. Holder" means a beneficial owner of Notes that is, for U.S. federal income tax purposes, (i) an individual citizen or resident of the United States, (ii) a corporation created or organized under the laws of the United States, any state thereof or the District of Columbia, (iii) an estate the income of which is subject to U.S. federal income tax without regard to its source or (iv) a trust if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or the trust has validly elected to be treated as a domestic trust for U.S. federal income tax purposes.

The U.S. federal income tax treatment of a partner in an entity or arrangement treated as a partnership for U.S. federal income tax purposes that holds Notes will depend on the status of the partner and the activities of the partnership. Prospective purchasers that are entities or arrangements treated as partnerships for U.S. federal income tax purposes should consult their tax advisers concerning the U.S. federal income tax consequences to them and their partners of the acquisition, ownership and disposition of Notes by the partnership.

This summary is based on the tax laws of the United States, including the Internal Revenue Code of 1986, as amended, its legislative history, existing and proposed regulations thereunder, published rulings and court decisions, as well as on the income tax treaty between the United States and the People's Republic of China (the "Treaty"), all as of the date hereof and all subject to change at any time, possibly with retroactive effect.

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2 Subject to ongoing review.

THE SUMMARY OF U.S. FEDERAL INCOME TAX CONSEQUENCES SET OUT BELOW IS FOR GENERAL INFORMATION ONLY. ALL PROSPECTIVE PURCHASERS SHOULD CONSULT THEIR TAX ADVISERS AS TO THE PARTICULAR TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING, AND DISPOSING OF THE NOTES, INCLUDING THEIR ELIGIBILITY FOR THE BENEFITS OF THE TREATY, THE APPLICABILITY AND EFFECT OF STATE, LOCAL, NON-U.S. AND OTHER TAX LAWS AND POSSIBLE CHANGES IN TAX LAW.

Payments of Interest

General

Interest on a Note will be taxable to a U.S. Holder as ordinary income at the time it is received or accrued, depending on such U.S. Holder's method of accounting for U.S. federal income tax purposes. Interest paid by the Company on the Notes constitutes income from sources outside the United States.

Effect of PRC Withholding Taxes

As discussed in "Taxation—PRC," payments of interest on the Notes to foreign investors may become subject to PRC withholding taxes. For U.S. federal income tax purposes, U.S. Holders would be treated as having received the amount of PRC taxes withheld by the Company with respect to a Note (including taxes withheld with respect to Additional Amounts), and as then having paid over the withheld taxes to the PRC taxing authorities. As a result of this rule, the amount of interest income included in gross income for U.S. federal income tax purposes by a U.S. Holder with respect to a payment of interest or OID may be greater than the amount of cash actually received (or receivable) by the U.S. Holder from the Company with respect to the payment.

Subject to certain limitations, a U.S. Holder generally will be entitled to a credit against its U.S. federal income tax liability, or a deduction in computing its U.S. federal taxable income, for PRC income taxes withheld by the Company. Interest generally will constitute "passive category income" for purposes of the foreign tax credit. The rules governing foreign tax credits are complex. Prospective purchasers should consult their tax advisers concerning the foreign tax credit implications of PRC withholding taxes (including restrictions on creditability of any PRC income tax withheld in excess of an applicable Treaty rate).

Sale and Retirement of the Notes

A U.S. Holder generally will recognise gain or loss on the sale or retirement of a Note equal to the difference between the amount realized on the sale or retirement and the U.S. Holder's adjusted tax basis of the Note. A U.S. Holder's adjusted tax basis in a Note generally will be its U.S. dollar cost. The amount realized does not include the amount attributable to accrued but unpaid interest, which will be taxable as interest income to the extent not previously included in income.

Gain or loss recognized by a U.S. Holder on the sale or retirement of a Note will be capital gain or loss and will be long-term capital gain or loss if the Note was held by the U.S. Holder for more than one year.

Gain or loss realized by a U.S. Holder on the sale or retirement of a Note generally will be U.S. source. Therefore, a U.S. Holder may have insufficient foreign source income to utilise foreign tax credits attributable to any PRC tax imposed on the sale or disposition. See "*Taxation—PRC*." However, if any PRC tax is imposed on a sale or retirement of a Note and a U.S. Holder is eligible for the benefits of the Treaty, any gain or loss (or portion thereof) from such sale or retirement might be treated as non-U.S. source gain or loss for foreign tax credit purposes. Prospective purchasers should consult their tax advisers as to the foreign tax credit implications of the sale or retirement of Notes.

Backup Withholding and Information Reporting

Payments of principal and interest on, and the proceeds of sale or other disposition (including exchange) of, Notes by a U.S. paying agent or other U.S. intermediary will be reported to the Internal Revenue Service ("**IRS**") and to the U.S. Holder as may be required under applicable regulations. Backup withholding may apply to these payments if the U.S. Holder fails to provide an accurate taxpayer identification number or certification of exempt status or fails to report all interest and dividends required to be shown on its U.S. federal income tax returns comply with applicable certification requirements. Certain U.S. Holders are not subject to backup withholding. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the U.S. Holder's U.S. federal income tax liability and may entitle the U.S. Holder to a refund, provided that the required information is timely furnished to the IRS. U.S. Holders should consult their tax advisers about these rules and any other reporting obligations that may apply to the ownership or disposition of Notes, including requirements related to the holding of certain "specified foreign financial assets."

PLAN OF DISTRIBUTION

Subject to the terms and conditions set forth in a purchase agreement relating to the Notes among the Company, The Hongkong and Shanghai Banking Corporation Limited, Morgan Stanley & Co. International plc, Citigroup Global Markets Inc., Standard Chartered Bank, J.P. Morgan Securities plc, MUFG Securities Asia Limited and Westpac Banking Corporation, as the Initial Purchasers named below, the Company has agreed to sell to the Initial Purchasers, and each of the Initial Purchasers has agreed, severally and not jointly, to purchase from the Company, the principal amount of the Notes set forth opposite its name below.

Initial Purchaser	Principal Amount of the Notes
The Hongkong and Shanghai Banking Corporation Limited	US$277,500,000
Morgan Stanley & Co. International plc	US$277,500,000
Citigroup Global Markets Inc.	US$120,000,000
Standard Chartered Bank	US$22,500,000
J.P. Morgan Securities plc	US$22,500,000
MUFG Securities Asia Limited	US$15,000,000
Westpac Banking Corporation	US$15,000,000
Total	US$750,000,000

Subject to the terms and conditions set forth in the purchase agreement, the Initial Purchasers have agreed, severally and not jointly, to purchase all of the Notes sold under the purchase agreement. The purchase agreement also provides that the obligations of the Initial Purchasers to purchase the Notes are subject to, among other things, the receipt by the Initial Purchasers of documentation related to the issuance and sale of the Notes, officers' certificates and legal opinions and to other conditions.

The Company has agreed to indemnify the Initial Purchasers against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the Initial Purchasers may be required to make in respect of those liabilities. In addition, we have agreed with the Initial Purchasers that we will pay a commission to private banks in connection with the purchase of the Notes by its private bank clients, which commission may be deducted from the purchase price for the Notes payable by such private banks upon settlement.

The Initial Purchasers propose initially to offer the Notes at the offering price set forth on the cover page of this offering memorandum. After the initial offering, the offering price or any other term of the offering may be changed.

Notes Are Not Being Registered

The Notes have not been registered under the Securities Act or any state securities laws. The Initial Purchasers propose to offer the Notes for resale in transactions not requiring registration under the Securities Act or applicable state securities laws, including sales in reliance on the exemption provided by Rule 144A and Regulation S under the Securities Act. The Initial Purchasers will not offer or sell the Notes within the United States except to persons they reasonably believe to be Qualified Institutional Buyers (as defined in Rule 144A under the Securities Act). Each of the Initial Purchasers has acknowledged and agreed that, except as permitted by the preceding sentence, it will not offer or sell Notes as part of its distribution at any time within the United States. In addition, until 40 days after the commencement of this offering, an offer or sale of the Notes within the United States by a dealer that is not participating in this offering may violate the registration requirements of the Securities Act if that offer or sale is made otherwise than in accordance with Rule 144A. Each purchaser of the Notes will be deemed to have made acknowledgments, representations and agreements as described under "*Transfer Restrictions.*"

New Issue of the Notes

The Notes are a new issue of securities with no established trading market. An application has been made to the SEHK for the listing of, and permission to deal in, the Notes by way of debt issues to Professional Investors only. We cannot assure you that the Notes will be or remain listed.

The Company has been advised by the Initial Purchasers that they presently intend to make a market in the Notes after completion of the offering. However, they are under no obligation to do so and may discontinue any market-making activities at any time without any notice. The Company cannot assure you that a liquid trading market will develop for the Notes, that you will be able to sell your Notes at a particular time or that the price that you receive when you sell your Notes will be favorable. If an active trading market for the Notes does not develop, the market price and liquidity of the Notes may be adversely affected. If the Notes are traded, they may trade at a discount from their initial offering price, depending on prevailing interest rates, the market for similar securities, the Company's operating performance and financial condition, general economic conditions and other factors.

Settlement

The Company expects that delivery of the Notes will be made to investors on or about the closing date specified on the cover page of this offering memorandum, which will be the fifth business day following the date of this offering memorandum (such settlement being referred to as "T+5"). Under Rule 15c6-1 under the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade the Notes on the date of pricing or the next succeeding business day will be required, by virtue of the fact that the Notes initially will settle on or about T+5, to specify an alternate settlement cycle at the time of any such trade to prevent a failed settlement. Purchasers of the Notes who wish to trade the Notes prior to their date of delivery hereunder should consult their advisors.

No Sales of Similar Securities

The Company has agreed that none of the Company, any members of the Group or any person acting on its or their behalf shall, for a period of 30 days after the date of this offering memorandum, without the prior written consent of the Initial Purchasers, (a) issue, offer, sell, contract to sell, pledge or otherwise dispose of or grant options, issue warrants or offer rights entitling persons to subscribe or purchase any interest in any securities of the same class as the Notes or any securities exchangeable for or which carry rights to subscribe or purchase the Notes or securities of the same class as the Notes, or other instruments representing interests in the Notes or other securities of the same class as them outside of the PRC, (b) enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise) directly or indirectly of any debt securities issued by the Company or any of its Principal Subsidiaries (as defined in the purchase agreement) outside of the PRC, or (c) announce or otherwise make public an intention to do any of the foregoing (other than the Notes). The Initial Purchasers in their sole discretion may release any of the securities subject to these lock-up agreements at any time without notice.

Short Positions and Stabilizing Transactions

In connection with the offering, any one of the Initial Purchasers appointed and acting in such capacity as the Stabilization Manager, may purchase and sell the Notes in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing purchases. Short sales involve the sale by the Stabilization Manager of a greater principal amount of the Notes than they are required to purchase in the offering. The Stabilization Manager must close out any short position by purchasing the Notes in the open market. A short position is more likely to be created if the Initial Purchasers are concerned that there may be downward pressure on the price of the Notes in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions involve bids to purchase the Notes so long as the stabilizing bids do not exceed a specified maximum.

Similar to other purchase transactions, the Stabilization Managers' purchases to cover the syndicate short sales and stabilizing purchasers may have the effect of raising or maintaining the market price of the Notes or preventing or retarding a decline in the market price of the Notes. As a result, the price of the Notes may be higher than the price that might otherwise exist in the open market.

None of the Company or any of the Initial Purchasers makes any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the Notes. In addition, none of the Company or any of the Initial Purchasers makes any representation that the Initial Purchasers will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice at any time. No assurance can be given as to the liquidity of, or the trading market for, the Notes.

Other Relationships

The Initial Purchasers and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. In the ordinary course of their business activities, the Initial Purchasers and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates.

Notice to Prospective Investors in the United States

The Notes have not been and will not be registered under the Securities Act, and may not be offered or sold within the United States except in certain transactions exempt from the registration requirements of the Securities Act.

The Notes are being offered and sold outside of the United States in reliance on Regulation S. The Purchase Agreement provides that the Initial Purchasers may arrange for the offer and resale of the Notes within the United States only to Qualified Institutional Buyers in reliance on Rule 144A.

In addition, until 40 days after the commencement of the offering of the Notes, an offer or sale of the Notes within the United States by a dealer that is not participating in the offering may violate the registration requirements of the Securities Act if such offer or sale is made otherwise than in accordance with Rule 144A.

To the extent the Initial Purchasers intend to make any offers or sales of the Notes in the United States, or to nationals or residents of the United States, they will do so only through one or more registered broker dealers in compliance with applicable securities laws and regulations, as well as with applicable laws of various states.

Notice to Prospective Investors in the European Economic Area

Each of the Initial Purchasers, severally and not jointly, has represented and agreed that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes to any retail investor in the European Economic Area. For the purposes of this provision:

(a) the expression "retail investor" means a person who is one (or more) of the following:

  (i) a. retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); or

  (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended or superseded, the "**Insurance Distribution Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or

  (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (as amended or superseded, the "**Prospectus Regulation**"); and

(b) the expression "**offer**" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered as to enable an investor to decide to purchase or subscribe for the Notes.

Notice to Prospective Investors in Italy

The offering of the Notes has not been registered with the Commissione Nazionale per le Società e la Borsa ("**CONSOB**") (the Italian Securities Exchange Commission) pursuant to Italian securities legislation and, accordingly, no Notes may be offered, sold or delivered, nor may copies of the Offering Memorandum or of any other document relating to the Notes be distributed in the Republic of Italy, except: (i) to qualified investors (*investitori qualificati*), as defined pursuant to Article 100 of Legislative Decree No. 58 of 24 February 1998, as amended (the Financial Services Act) and Article 34-ter, first paragraph, letter (b) of CONSOB Regulation No. 11971 of 14 May 1999, as amended from time to time (Regulation No. 11971); or (ii) in other circumstances which are exempted from the rules on public offerings pursuant to Article 100 of the Financial Services Act and Article 34-ter of Regulation No. 11971. Any offer, sale or delivery of the Notes or distribution of copies of the Offering Memorandum or any other document relating to the Notes in the Republic of Italy under (i) or (ii) above must be: (a) made by an investment firm, bank or financial intermediary permitted to conduct such activities in the Republic of Italy in accordance with the Financial Services Act, CONSOB Regulation No. 16190 of 29 October 2007 (as amended from time to time) and Legislative Decree No. 385 of 1 September 1993, as amended (the "**Banking Act**"); and (b) in compliance with Article 129 of the Banking Act, as amended, and the implementing guidelines of the Bank of Italy, as amended from time to time, pursuant to which the Bank of Italy may request information on the issue or the offer of securities in the Republic of Italy; and (c) in compliance with any other applicable laws and regulations or requirement imposed by CONSOB or other Italian authority.

Notice to Prospective Investors in the United Kingdom

Each of the Initial Purchasers, severally and not jointly, represents and agrees that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the "**FSMA**")) received by it in connection with the issue or sale of the Notes in circumstances in which Section 21(1) of the FSMA does not apply to the Company; and

(b) 0it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the Notes in, from or otherwise involving, the United Kingdom.

Notice to Prospective Investors in Singapore

Each of the Initial Purchasers has acknowledged that this Offering Memorandum has not been and will not be registered as a prospectus with the Monetary Authority of Singapore (the "**MAS**"). Accordingly, each of the Initial Purchasers represents, warrants and agrees that it has not offered or sold any Notes or caused the Notes to be made the subject of an invitation for subscription or purchase and will not offer or sell any Notes or cause the Notes to be made the subject of an invitation for subscription or purchase, and will not offer or sell any Notes or cause the Notes to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this Offering Memorandum or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289 of Singapore) (the "**SFA**") pursuant to Section 274 of SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:

    (1) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

    (2) where no consideration is or will be given for the transfer;

    (3) where the transfer is by operation of law;

    (4) as specified in Section 276(7) of the SFA; or

    (5) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Notice to Prospective Investors in Hong Kong

Each of the Initial Purchasers represents, warrants and undertakes that:

(a) it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Notes other than (i) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (the "**SFO**") and any rules made under the SFO; or (ii) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions Ordinance (Cap. 32) of Hong Kong (the "**C(WUMP)O**") or which do not constitute an offer to the public within the meaning of the C(WUMP)O; and

(b) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Notes, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Notes which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made under the SFO.

Notice to Prospective Investors in Japan

Each of the Initial Purchasers, severally and not jointly, represents, warrants and undertakes that the Notes have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended, the "**Financial Instruments and Exchange Act**") and that it has not, directly or indirectly, offered or sold and will not, directly or indirectly, offer or sell any Notes in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and other applicable laws and regulations of Japan.

Notice to Prospective Investors in the PRC

Each of the Initial Purchasers, severally and not jointly, represents, warrants and agrees that the Notes are not being offered or sold and may not be offered or sold, directly or indirectly, in the PRC (for such purposes, not including the Hong Kong and Macau Special Administrative Regions or Taiwan), except as permitted by the applicable laws of the PRC.

Notice to Prospective Investors in the Cayman Islands

Each of the Initial Purchasers, severally and not jointly, represents and agrees that it has not offered or sold, directly or indirectly, and will not offer or sell, directly or indirectly, any Notes in the Cayman Islands.

Other Relationships

The Initial Purchasers and their affiliates have in the past engaged, and may in the future engage, in transactions with and perform services, including commercial banking and financial advisory and investment banking services, for the Company and their respective affiliates in the ordinary course of business, for which they received or will receive customary fees and expenses. The Company and their respective affiliates may enter into hedging or other derivative transactions as part of their risk management strategy with one or more of the Initial Purchasers, which may include transactions relating to its obligations under the Notes. The Company's obligations under these transactions may be secured by cash or other collateral.

In connection with the offering of the Notes, each Initial Purchaser and/or its affiliate(s) may act as an investor for its own account and may take up Notes in the offering and in that capacity may retain, purchase or sell for its own account such securities and any securities of the Company or related investments and may offer or sell such securities or other investments otherwise than in connection with the offering. Accordingly, references herein to the Notes being offered should be read as including any offering of the Notes to the Initial Purchasers and/or their affiliates acting in such capacity. Such persons do not intend to disclose the extent of any such investment or transactions otherwise than in accordance with any legal or regulatory obligation to do so.

In addition, in the ordinary course of their business activities, the Initial Purchasers and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of the Company or its affiliates. The Initial Purchasers and their affiliates may also make investment recommendations and/or publish or express independent research views with respect to such securities or financial instruments and may hold, or recommend to clients that they acquire long and/or short positions in such securities and instruments.

The Initial Purchasers or certain of their affiliates may purchase Notes and be allocated Notes for asset management and/or proprietary purposes but not with a view to distribution.

If a jurisdiction requires that the offering be made by a licensed broker or dealer and the Initial Purchaser or any affiliate of the Initial Purchaser is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by that Initial Purchaser or its affiliate on behalf of the Company in such jurisdiction.

TRANSFER RESTRICTIONS

Because of the following restrictions, purchasers are advised to consult legal counsel prior to making any offer, sale, resale, pledge or other transfer of the Notes.

Each purchaser of the Notes will be deemed to have represented and agreed as follows (terms used in this paragraph that are defined in Rule 144A or in Regulation S under the Securities Act are used herein as defined therein):

1. it is not an "affiliate" (as defined in Rule 144 under the Securities Act) of the Company or acting on behalf of the Company and (A)(i) is a Qualified Institutional Buyer, (ii) is aware that the sale of the Notes to it is being made in reliance on Rule 144A and (iii) is acquiring such Notes for its own account or the account of a Qualified Institutional Buyer, or (B) is outside the United States;

2. it acknowledges that the Notes have not been and will not be registered under the Securities Act or with any securities regulatory authority of any jurisdiction and may not be offered or sold within the United States except as set forth below;

3. it understands and agrees that if it is a purchaser other than a purchaser outside the United States and if it should resell or otherwise transfer the Securities within the time period referred to in Rule 144(d) under the Securities Act with respect to such transfer, it will do so only (a) if such purchaser is an Initial Purchaser, (i) to us or any subsidiary thereof; (ii) inside the United States to a Qualified Institutional Buyer in compliance with Rule 144A; (iii) outside the United States in an offshore transaction in compliance with Rule 904 under the Securities Act; (iv) pursuant to the exemption from registration provided by Rule 144 under the Securities Act (if available); or (b) if such purchaser is a subsequent purchaser of an interest in the Regulation S global note, as set forth in (a) above and, in addition, pursuant to any available exemption from the registration requirements under the Securities Act (provided that as a condition to the registration of transfer of any Securities otherwise than as described in (a)(i), (a)(ii) or (a)(iii) above or (c) below, the Company, the Trustee may, in circumstances that any of them deems appropriate, require evidence as to compliance with any such exemption); or (c) pursuant to an effective registration statement under the Securities Act, and in each of such cases, in accordance with any applicable securities laws of any state of the United States and any other jurisdiction. It understands that no representation has been made as to the availability of Rule 144A or any other exemption under the Securities Act or any state securities laws for the offer, sale, resale, pledge or transfer of the Securities;

4. it agrees to, and each subsequent holder is required to, notify any purchaser of the Notes from it of the resale restrictions referred to in clause 3 above, if then applicable;

5. it understands and agrees that (A) the Notes initially offered in the United States to Qualified Institutional Buyers will be represented by Rule 144A global notes and (B) the Notes offered outside the United States in reliance on Regulation S will be represented by Regulation S global notes;

6. it understands that the Notes will bear a legend to the following effect, unless otherwise agreed to by the Company:

   THIS NOTE HAS NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND ACCORDINGLY, THIS NOTE MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED WITHIN THE UNITED STATES EXCEPT AS SET FORTH IN THE FOLLOWING SENTENCE. BY ITS ACQUISITION HEREOF, THE HOLDER (1) REPRESENTS THAT (A) IT IS A "QUALIFIED INSTITUTIONAL BUYER" (AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT) OR (B) IT IS ACQUIRING THIS NOTE IN AN OFFSHORE

TRANSACTION IN COMPLIANCE WITH REGULATION S UNDER THE SECURITIES ACT, (2) AGREES THAT IT WILL NOT WITHIN THE TIME PERIOD REFERRED TO IN RULE 144(d) UNDER THE SECURITIES ACT AS IN EFFECT WITH RESPECT TO SUCH TRANSFER, RESELL OR OTHERWISE TRANSFER THIS NOTE EXCEPT (A) IF SUCH PURCHASER IS AN INITIAL PURCHASER, (I) TO THE COMPANY; (II) INSIDE THE UNITED STATES TO A QUALIFIED INSTITUTIONAL BUYER IN COMPLIANCE WITH RULE 144A UNDER THE SECURITIES ACT; (III) OUTSIDE THE UNITED STATES IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH RULE 904 UNDER THE SECURITIES ACT; OR (IV) PURSUANT TO THE EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT (IF AVAILABLE); (B) IF SUCH PURCHASER IS A SUBSEQUENT PURCHASER OF AN INTEREST IN THE RESTRICTED GLOBAL NOTE, AS SET FORTH IN (A) ABOVE AND, IN ADDITION, PURSUANT TO ANY AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS UNDER THE SECURITIES ACT (PROVIDED THAT AS A CONDITION TO THE REGISTRATION OF TRANSFER OF ANY NOTES OTHERWISE THAN AS DESCRIBED IN (A)(I), (A)(II) OR (A)(III) ABOVE OR (C) BELOW, THE COMPANY, THE TRUSTEE OR THE PAYING AGENT AND REGISTRAR MAY, IN CIRCUMSTANCES THAT ANY OF THEM DEEMS APPROPRIATE, REQUIRE EVIDENCE AS TO COMPLIANCE WITH ANY SUCH EXEMPTION); OR (C) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (3) AGREES THAT IT WILL DELIVER TO EACH PERSON TO WHOM THIS NOTE IS TRANSFERRED A NOTICE SUBSTANTIALLY TO THE EFFECT OF THIS LEGEND. IN CONNECTION WITH ANY TRANSFER OF THIS NOTE WITHIN THE TIME PERIOD REFERRED TO ABOVE, THE HOLDER MUST CHECK THE APPROPRIATE BOX SET FORTH ON THE REVERSE HEREOF RELATING TO THE MANNER OF SUCH TRANSFER AND SUBMIT THIS CERTIFICATE TO THE TRUSTEE. AS USED HEREIN, THE TERMS "OFFSHORE TRANSACTION" AND "UNITED STATES" HAVE THE MEANINGS GIVEN TO THEM BY REGULATION S UNDER THE SECURITIES ACT. THE INDENTURE CONTAINS A PROVISION REQUIRING THE TRUSTEE AND THE PAYING AGENT TO REFUSE TO REGISTER ANY TRANSFER OF THIS NOTE IN VIOLATION OF THE FOREGOING RESTRICTIONS;

7. it acknowledges that the Company, the Initial Purchasers, the Trustee, the Paying Agent, the Transfer Agent, the Registrar and others will rely upon the truth and accuracy of the foregoing acknowledgments, representations and agreements and agrees that, if any of such acknowledgments, representations or agreements deemed to have been made by virtue of its purchase of the Notes are no longer accurate, it shall promptly notify the Company, and if it is acquiring any Notes as a fiduciary or agent for one or more accounts, it represents that it has sole investment discretion with respect to each such account and that it has full power to make the foregoing acknowledgments, representations and agreements on behalf of each such account.

For further discussion of the requirements (including the presentation of transfer certificates) under the Indenture to effect exchanges of transfer of interests in the global notes and of the Notes in certificated form, see "*Description of the Notes — Notes; Delivery and Form.*"

RATINGS

The Notes are expected to be rated Baa2 by Moody's, BBB by Standard & Poor's and BBB by Fitch. The ratings reflect the rating agencies' assessment of the likelihood of timely payment of the principal of and interest on the Notes. The ratings do not address the payment of any Additional Amounts and do not constitute recommendations to purchase, hold or sell the Notes inasmuch as such ratings do not comment as to market price or suitability for a particular investor. Each such rating should be evaluated independently of any other rating on the Notes, on other securities of ours, or on us. Additionally, we have been assigned an issuer rating of Baa2 with stable outlook by Moody's, a long-term corporate credit rating of BBB by Standard & Poor's with stable outlook and a rating of BBB by Fitch with stable outlook. We cannot assure you that the ratings will be confirmed or that they will remain in effect for any given period or that the ratings will not be revised by such rating agencies in the future if in their judgment circumstances so warrant.

LEGAL MATTERS

Certain legal matters with respect to the Notes will be passed upon for us by Linklaters as to matters of Hong Kong, United States federal and New York law and Maples and Calder (Hong Kong) LLP as to matters of Cayman Islands law and Commerce & Finance Law Offices as to matters of PRC law. Certain legal matters will be passed upon for the Initial Purchasers by Davis Polk & Wardwell as to matters of United States federal and New York law and King & Wood Mallesons as to matters of PRC law.

INDEPENDENT ACCOUNTANTS

Our consolidated financial statements as of and for the years ended December 31, 2018 and 2019 included in this offering memorandum have been audited by Deloitte Touche Tohmatsu, as stated in their reports appearing herein. Our unaudited condensed consolidated financial statements as of and for the six months ended June 30, 2020 has been reviewed by Deloitte Touche Tohmatsu, as stated in their report appearing herein.

With respect to the unaudited condensed consolidated financial statements as of and for the six months ended June 30, 2020 included in this Offering Memorandum, Deloitte Touche Tohmatsu has applied limited procedures in accordance with Hong Kong Standard on Review Engagements 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the HKICPA for a review of such information. However, as stated in their report included in this Offering Memorandum, they did not audit or express an opinion on the interim financial information. Accordingly, the degree of reliance on their report on such information should be restricted in light of the limited nature of the review procedures applied.

For the purpose of the offers and sales outside the United States in reliance on Regulation S and within the United States to "qualified institutional buyers" in reliance on Rule 144A under the Securities Act, Deloitte Touche Tohmatsu has acknowledged the references to its name and the inclusion of its reports in the form and context in which they are respectively included in this offering memorandum.

GENERAL INFORMATION

1. **Clearing Systems:** The Notes have been accepted for clearance through the facilities of Euroclear, Clearstream and DTC. Certain trading information with respect to the Notes is set forth below:

	ISIN	CUSIP	Common Code
Rule 144A global note.	US26876FAC68	26876F AC6	222705070
Regulation S global note	USG3066LAF88	G3066L AF8	222705088

Only Notes evidenced by a global note have been accepted for clearance through Euroclear, Clearstream or DTC, as the case may be.

2. **Authorizations:** The Company has obtained all necessary consents, approvals and authorizations in connection with the issue and performance of its obligations under the Notes, the Indenture and Paying and Transfer Agent Appointment Letter. The issue of the Notes and entry into the transaction documents were authorized by resolutions of the board of directors of the Company on September 7, 2020.

3. **No Material Adverse Change:** Except for those as disclosed in this Offering Memorandum, there has been no material adverse change in the financial or trading position or prospects of the Company since December 31, 2019.

4. **Litigation:** The Company is not involved in any litigation or arbitration proceedings that the Company believes are material in the context of the Notes, nor is the Company aware that any such proceedings are pending or threatened.

5. **Available Documents:** The latest annual report and consolidated accounts of the Company and the latest unaudited interim consolidated accounts of the Company, as well as the Indenture and Paying and Transfer Agent Appointment Letter, will be available for inspection from the Issue Date at Rooms 3101-04, 31st Floor, Tower 1, Lippo Centre, 89 Queensway, Hong Kong during normal business hours, so long as any of the Notes is outstanding.

6. **Financial Statements:** The Company's audited consolidated financial statements as of and for the years ended December 31, 2017, 2018 and 2019 have been audited by Deloitte Touche Tohmatsu in accordance with Hong Kong Standards on Auditing issued by the HKICPA, as stated in its report appearing herein. The Company's unaudited but reviewed condensed consolidated financial statements as of and for the six months ended June 30, 2019 and 2020 have been reviewed by Deloitte Touche Tohmatsu in accordance with Hong Kong Standard on Review Engagements 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the HKICPA, as stated in its report appearing herein.

7. **Listing:** Application is expected to be made to the Hong Kong Stock Exchange for the listing of, and permission to deal in, the Notes by way of debt issues to Professional Investors only. It is expected that dealing in, and listing of, the Notes on the Hong Kong Stock Exchange will commence on September 18, 2020.

INDEX TO FINANCIAL INFORMATION

Page references included in the consolidated financial statements as of and for each of the years ended December 31, 2017, 2018 and 2019 and the unaudited but reviewed condensed consolidated financial statements as of and for the six months ended June 30, 2019 and 2020 set forth below refer to pages in such consolidated financial statements as set forth in our annual reports for the years ended December 31, 2017, 2018 and 2019 and our consolidated interim reports for the six months ended June 30, 2019 and 2020. These annual reports are not incorporated by reference herein and do not form part of this Offering Memorandum.

Unaudited but Reviewed Condensed Consolidated Financial Statements as of and for the six months ended June 30, 2020

Audited Consolidated Financial Statements as of and for the year ended December 31, 2019

Audited Consolidated Financial Statements as of and for the year ended December 31, 2018

Deloitte. 德勤

TO THE BOARD OF DIRECTORS OF ENN ENERGY HOLDINGS LIMITED
(Incorporated in the Cayman Islands with limited liability)

Introduction

We have reviewed the condensed consolidated financial statements of ENN Energy Holdings Limited (the "Company") and its subsidiaries (collectively referred to as the "Group") set out on pages 34 to 72, which comprise the condensed consolidated statement of financial position as of 30 June 2020 and the related condensed consolidated statement of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the six-month period then ended, and certain explanatory notes. The Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited require the preparation of a report on interim financial information to be in compliance with the relevant provisions thereof and Hong Kong Accounting Standard 34 "Interim Financial Reporting" ("HKAS 34") issued by the Hong Kong Institute of Certified Public Accountants. The directors of the Company are responsible for the preparation and presentation of these condensed consolidated financial statements in accordance with HKAS 34. Our responsibility is to express a conclusion on these condensed consolidated financial statements based on our review, and to report our conclusion solely to you, as a body, in accordance with our agreed terms of engagement, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

Scope of Review

We conducted our review in accordance with Hong Kong Standard on Review Engagements 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the Hong Kong Institute of Certified Public Accountants. A review of these condensed consolidated financial statements consists of making inquiries, 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 Hong Kong Standards on Auditing 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.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the condensed consolidated financial statements are not prepared, in all material respects, in accordance with HKAS 34.

Deloitte Touche Tohmatsu
Certified Public Accountants

Hong Kong
20 August 2020

CONDENSED CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the six months ended 30 June 2020

	Notes	**Six months ended 30 June**	
		2020	2019
		RMB million	RMB million
		(unaudited)	(unaudited)
Revenue	3	**31,543**	35,344
Cost of sales		**(25,941)**	(29,746)
Gross profit		**5,602**	5,598
Other income	4	**421**	373
Other gains and losses	5	**(234)**	793
Distribution and selling expenses		**(435)**	(421)
Administrative expenses		**(1,392)**	(1,397)
Share of results of associates		**166**	190
Share of results of joint ventures		**266**	242
Finance costs	6	**(320)**	(375)
Profit before tax	7	**4,074**	5,003
Income tax expense	8	**(909)**	(1,058)
Profit for the period		**3,165**	3,945
Other comprehensive (expense) income			
Items that will not be reclassified to profit or loss:			
Fair value gain on equity instruments at fair value through other comprehensive income ("FVTOCI")		**63**	–
Items that have been reclassified or may be reclassified subsequently to profit or loss:			
Exchange differences arising on translating foreign operations		**(1)**	–
Release of exchange reserve to profit or loss upon deregistration of a subsidiary		**–**	3
Hedging instruments for cash flow hedges		**(230)**	–
Other comprehensive (expense) income for the period		**(168)**	3
Total comprehensive income for the period		**2,997**	3,948
Profit for the period attributable to:			
Owners of the Company		**2,693**	3,362
Non-controlling interests		**472**	583
		3,165	3,945
Total comprehensive income for the period attributable to:			
Owners of the Company		**2,525**	3,365
Non-controlling interests		**472**	583
		2,997	3,948

		RMB	RMB
Earnings per share	10		
Basic		**2.40**	2.99
Diluted		**2.39**	2.99

CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 30 June 2020

	Notes	At 30 June 2020 RMB million (unaudited)	At 31 December 2019 RMB million (audited)
Non-current Assets			
Property, plant and equipment	11	**39,369**	37,955
Right-of-use assets	11	**2,117**	2,185
Investment properties		**268**	268
Goodwill		**2,427**	2,379
Intangible assets	12	**4,302**	4,175
Interests in associates		**3,532**	3,308
Interests in joint ventures		**4,137**	3,841
Other receivables	14	**35**	48
Financial assets at fair value	13	**6,060**	5,169
Equity instruments at FVTOCI		**200**	123
Amounts due from associates	16	**6**	345
Amounts due from joint ventures	17	**25**	12
Deferred tax assets		**1,292**	1,292
Deposits paid for investments		**86**	15
Deposits paid for acquisition of property, plant and equipment, land use rights and right of operation		**145**	169
Restricted bank deposits	15	**442**	446
		64,443	61,730
Current Assets			
Inventories		**1,359**	1,169
Trade and other receivables	14	**7,647**	7,492
Contract assets		**673**	757
Financial assets at fair value	13	**910**	361
Amounts due from associates	16	**929**	575
Amounts due from joint ventures	17	**1,043**	1,058
Amounts due from related companies	18	**211**	164
Restricted bank deposits	15	**430**	566
Cash and cash equivalents		**7,938**	7,373
		21,140	19,515

CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 30 June 2020

	Notes	At 30 June 2020 RMB million (unaudited)	At 31 December 2019 RMB million (audited)
Current Liabilities			
Trade and other payables	19	**6,825**	7,635
Contract liabilities		**12,359**	12,613
Deferred income		**34**	33
Amounts due to associates	16	**224**	189
Amounts due to joint ventures	17	**1,032**	785
Amounts due to related companies	18	**761**	1,060
Taxation payables		**862**	962
Dividend payable		**1,719**	–
Lease liabilities		**92**	100
Bank and other loans – due within one year	20	**8,041**	7,495
Senior notes		**2,579**	–
Financial liabilities at fair value	13	**789**	416
		35,317	31,288
Net Current Liabilities		**(14,177)**	(11,773)
Total Assets less Current Liabilities		**50,266**	49,957
Capital and Reserves			
Share capital	22	**116**	116
Reserves		**26,587**	25,752
Equity attributable to owners of the Company		**26,703**	25,868
Non-controlling interests		**5,244**	5,152
Total Equity		**31,947**	31,020
Non-current Liabilities			
Contract liabilities		**2,976**	3,302
Deferred income		**675**	650
Amounts due to joint ventures	17	**585**	735
Lease liabilities		**340**	450
Bank and other loans – due after one year	20	**3,771**	2,848
Corporate bonds	21	**2,095**	2,094
Senior notes		**–**	2,539
Unsecured bonds		**4,234**	4,169
Financial liabilities at fair value	13	**1,546**	330
Deferred tax liabilities		**2,097**	1,820
		18,319	18,937
		50,266	49,957

CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the six months ended 30 June 2020

Six months ended 30 June 2020 (unaudited)

	Equity attributable to owners of the Company													
	Share capital RMB million (Note 22)	Treasury stocks RMB million (Note 23)	Share premium RMB million	Special reserve RMB million (note a)	Revaluation reserve RMB million	Share options reserve RMB million	Exchange reserve RMB million	Hedging reserve RMB million (Note 24)	Surplus reserve fund RMB million (note b)	Designated safety fund RMB million (note c)	Retained earnings RMB million	Total RMB million	Non-controlling interests RMB million	Total equity RMB million
At 1 January 2020	116	(151)	2,690	(82)	23	128	–	–	2,648	59	20,437	25,868	5,152	31,020
Profit for the period	–	–	–	–	–	–	–	–	–	–	2,693	2,693	472	3,165
Other comprehensive (expense) income for the period	–	–	–	–	63	–	(1)	(230)	–	–	–	(168)	–	(168)
Total comprehensive income for the period	–	–	–	–	63	–	(1)	(230)	–	–	2,693	2,525	472	2,997
Recognition of equity-settled share-based payment (Note 23)	–	–	–	–	–	36	–	–	–	–	–	36	–	36
Issue of ordinary shares on exercise of share options (Note 23)	–	–	16	–	–	(4)	–	–	–	–	–	12	–	12
Purchase of shares under Share Award Scheme	–	(17)	–	–	–	–	–	–	–	–	–	(17)	–	(17)
Acquisition of subsidiaries and businesses (Notes 25 & 26)	–	–	–	–	–	–	–	–	–	–	–	–	11	11
Deregistration/disposal of subsidiaries	–	–	–	–	–	–	–	–	–	–	–	–	(83)	(83)
Acquisition of additional interests in subsidiaries	–	–	–	(2)	–	–	–	–	–	–	–	(2)	(97)	(99)
Capital contribution from non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	–	–	44	44
Dividends appropriation (Note 9)	–	–	(1,719)	–	–	–	–	–	–	–	–	(1,719)	–	(1,719)
Dividends paid to non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	–	–	(255)	(255)
Transfer to surplus reserve fund	–	–	–	–	–	–	–	–	345	–	(345)	–	–	–
Transfer from designated safety fund	–	–	–	–	–	–	–	–	–	(3)	3	–	–	–
At 30 June 2020	116	(168)	987	(84)	86	160	(1)	(230)	2,993	56	22,788	26,703	5,244	31,947

CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the six months ended 30 June 2020

Six months ended 30 June 2019 (unaudited)

	Equity attributable to owners of the Company													
	Share capital RMB million (Note 22)	Treasury stocks RMB million (Note 23)	Share premium RMB million	Special reserve RMB million (note a)	Revaluation reserve RMB million	Share options reserve RMB million	Exchange reserve RMB million	Hedging reserve RMB million	Surplus reserve fund RMB million (note b)	Designated safety fund RMB million (note c)	Retained earnings RMB million	Total RMB million	Non-controlling interests RMB million	Total equity RMB million
At 1 January 2019	116	–	2,614	(92)	22	78	(3)	–	2,414	60	16,176	21,385	4,169	25,554
Profit for the period	–	–	–	–	–	–	–	–	–	–	3,362	3,362	583	3,945
Other comprehensive income for the period	–	–	–	–	–	–	3	–	–	–	–	3	–	3
Total comprehensive income for the period	–	–	–	–	–	–	3	–	–	–	3,362	3,365	583	3,948
Recognition of equity-settled share-based payment (Note 23)	–	–	–	–	–	26	–	–	–	–	–	26	–	26
Issue of ordinary shares on exercise of share options (Note 23)	–	–	16	–	–	(5)	–	–	–	–	–	11	–	11
Purchase of shares under Share Award Scheme	–	(151)	–	–	–	–	–	–	–	–	–	(151)	–	(151)
Acquisition of subsidiaries and businesses	–	–	–	–	–	–	–	–	–	–	–	–	170	170
Disposal of a subsidiary	–	–	–	–	–	–	–	–	–	–	–	–	(1)	(1)
Acquisition of additional interests in a subsidiary	–	–	–	10	–	–	–	–	–	–	–	10	(110)	(100)
Capital contribution from non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	–	–	55	55
Dividends appropriation (Note 9)	–	–	–	–	–	–	–	–	–	–	(1,176)	(1,176)	–	(1,176)
Dividends paid to non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	–	–	(325)	(325)
Transfer to surplus reserve fund	–	–	–	–	–	–	–	–	135	–	(135)	–	–	–
At 30 June 2019	116	(151)	2,630	(82)	22	99	–	–	2,549	60	18,227	23,470	4,541	28,011

Notes:

a. The balance represents the difference between the fair values of consideration paid and the carrying values of net assets attributable to the additional interests of subsidiaries acquired or disposal of with no change in control.

b. In accordance with the People's Republic of China ("PRC") regulations, the surplus reserve fund retained by subsidiaries in the PRC is non-distributable.

c. Pursuant to relevant PRC regulation, the Group is required to transfer 1.5% on revenue generated from construction and installation, transportation of gas or other dangerous chemical into a designated fund. The fund will be used for installation and repair and maintenance of safety facilities. The movement during the period represents the difference between the amount provided based on the relevant PRC regulations and the amount utilised during the period.

CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS

For the six months ended 30 June 2020

	Notes	Six months ended 30 June 2020 RMB million (unaudited)	2019 RMB million (unaudited)
Net cash generated from operating activities		**3,213**	4,294
INVESTING ACTIVITIES			
Purchases of property, plant and equipment		**(2,237)**	(2,815)
Purchases of wealth management products		**(6,982)**	(11,126)
Redemptions of wealth management products		**6,998**	11,175
Additions of restricted bank deposits		**(609)**	(763)
Release of restricted bank deposits		**749**	1,005
Net cash outflow on acquisition of subsidiaries and businesses	25 & 26	**(294)**	(296)
Net cash outflow on acquisition of additional interest in subsidiaries		**(49)**	(100)
Net cash inflow on disposal/deregistration of subsidiaries		**33**	45
Investments in associates		**(101)**	(48)
Investments in joint ventures		**(61)**	(37)
Interest received		**74**	80
Settlement of financial assets/liabilities at fair value		**(133)**	387
Dividends received from associates		**43**	43
Dividends received from joint ventures		**12**	279
Advances to joint ventures		**(95)**	(12)
Advances to associates		**(178)**	(5)
Advances to third parties		**(682)**	(244)
Amounts repaid by joint ventures		**35**	819
Amounts repaid by associates		**117**	189
Amounts repaid by third parties		**134**	311
Other investing activities		**(119)**	(43)
Net cash used in investing activities		**(3,345)**	(1,156)

CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS

For the six months ended 30 June 2020

	Six months ended 30 June	
	2020	2019
	RMB million	RMB million
	(unaudited)	(unaudited)
FINANCING ACTIVITIES		
New bank loans raised	**6,250**	5,408
Repayment of bank loans	**(4,944)**	(8,074)
Amounts repaid to banks and other financial institutions by ENN Finance Company Limited ("ENN Finance")	**(10,130)**	(7,324)
Advances from banks and other financial institutions by ENN Finance	**10,130**	7,324
Net proceeds from ordinary shares issued on exercise of share options	**12**	11
Purchase of shares under Share Award Scheme	**(17)**	(151)
Proceeds from issuance of corporate bonds	**–**	1,494
Repayment of lease liabilities	**(55)**	(49)
Dividends paid to non-controlling shareholders	**(255)**	(325)
Capital contribution from non-controlling shareholders	**44**	55
Interest paid	**(415)**	(373)
Advances from joint ventures	**175**	45
Advances from associates	**61**	1
Advances from related companies	**31**	3
Amounts repaid to joint ventures	**(192)**	(1,128)
Amounts repaid to associates	**(1)**	(229)
Other financing activities	**(1)**	(7)
Net cash generated from (used in) financing activities	**693**	(3,319)
Net increase (decrease) in cash and cash equivalents	**561**	(181)
Effect of foreign exchange rate changes	**4**	–
Cash and cash equivalents at beginning of the period	**7,373**	7,923
Cash and cash equivalents at end of the period	**7,938**	7,742

1. Basis of Preparation

The condensed consolidated financial statements have been prepared in accordance with Hong Kong Accounting Standard ("HKAS") 34 "Interim Financial Reporting" issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") as well as with the applicable disclosure requirements of Appendix 16 to the Rules Governing the Listing of Securities (the "Listing Rules") on The Stock Exchange of Hong Kong Limited (the "Stock Exchange").

In preparing the condensed consolidated financial statements, the directors of the Company (the "Directors") have given careful consideration of the Group's net current liabilities of approximately RMB14,177 million as at 30 June 2020. A wholly-owned subsidiary of the Company has been approved by China Securities Regulatory Commission on 10 December 2018 to issue corporate bonds amounting to RMB5,000 million. As at 30 June 2020, the unutilised issuance quota of the corporate bonds is RMB2,900 million. The wholly-owned subsidiary was also approved by the National Development and Reform Commission on 19 January 2020 to issue green bonds amounting to RMB5,000 million. Except for the unutilised issuance quota of the corporate bonds and green bonds, the Group has unutilised credit facilities of approximately RMB10,379 million as at 30 June 2020, which are subject to renewal within twelve months from the end of the reporting period. The Directors are satisfied that the Group will be able to meet in full its financial obligations as they fall due for the foreseeable future. Accordingly, the condensed consolidated financial statements for the six months ended 30 June 2020 have been prepared on a going concern basis.

2. Principal Accounting Policies

The condensed consolidated financial statements have been prepared on the historical cost basis except for certain properties and financial instruments, which are measured at fair values, as appropriate.

Other than the changes of accounting policies resulting from application of amendments to Hong Kong Financial Reporting Standards ("HKFRSs") and application of hedge accounting which became relevant to the Group, the accounting policies and methods of computation used in the condensed consolidated financial statements are the same as those followed in the preparation of the Group's annual financial statements for the year ended 31 December 2019.

Amendments to HKFRSs

In the current period, the Group has applied the Amendments to Reference to the Conceptual Framework in HKFRSs that are mandatorily effective for the current period and the following amendments to HKFRSs issued by the HKICPA for the first time, which are mandatorily effective for the annual period beginning on or after 1 January 2020 for the preparation of the Group's condensed consolidated financial statements:

Amendments to HKAS 1 and HKAS 8	Definition of Material
Amendments to HKFRS 3	Definition of a Business
Amendments to HKFRS 9, HKAS 39 and HKFRS 7	Interest Rate Benchmark Reform

The application of the Amendments to References to the Conceptual Framework in HKFRSs and the amendments to HKFRSs in the current period has had no material impact on the Group's financial positions and performance for the current and prior periods and/or on the disclosures set out in these condensed consolidated financial statements.

2. Principal Accounting Policies *(continued)*

Accounting policies newly applied by the Group

In addition, the Group has applied the following accounting policies which became relevant to the Group in the current interim period.

Hedge accounting

The Group designates certain derivatives as hedging instruments for cash flow hedges.

At the inception of the hedging relationship, the Group documents the relationship between the hedging instrument and the hedged item, along with its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument is highly effective in offsetting changes in fair values or cash flows of the hedged item attributable to the hedged risk.

Assessment of hedging relationship and effectiveness

For hedge effectiveness assessment, the Group considers whether the hedging instrument is effective in offsetting changes in fair values or cash flows of the hedged item attributable to the hedged risk, which is when the hedging relationships meet all of the following hedge effectiveness requirements:

- there is an economic relationship between the hedged item and the hedging instrument;
- the effect of credit risk does not dominate the value changes that result from that economic relationship; and
- the hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Group actually hedges and the quantity of the hedging instrument that the entity actually uses to hedge that quantity of hedged item.

In assessing the economic relationship between the hedged item and the hedging instrument, the Group reviews their critical terms.

Cash flow hedges

The effective portion of changes in the fair value of derivatives and other qualifying hedging instruments that are designated and qualify as cash flow hedges is recognised in other comprehensive income and accumulated under the heading of hedging reserve, limited to the cumulative change in fair value of the hedged item from inception of the hedge. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss, and is included in the 'other gains and losses' line item.

Amounts previously recognised in other comprehensive income and accumulated in equity are reclassified to profit or loss in the periods when the hedged item affects profit or loss, in the same line as the recognised hedged item. However, when the hedged forecast transaction results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously recognised in other comprehensive income and accumulated in equity are removed from equity and included in the initial measurement of the cost of the non-financial asset or non-financial liability.

2. Principal Accounting Policies *(continued)*

Accounting policies newly applied by the Group *(continued)*

Hedge accounting (continued)

Discontinuation of hedge accounting

The Group discontinues hedge accounting prospectively only when the hedging relationship (or a part thereof) ceases to meet the qualifying criteria (after rebalancing, if applicable). This includes instances when the hedging instrument expires or is sold, terminated or exercised. Discontinuing hedge accounting can either affect a hedging relationship in its entirety or only a part of it (in which case hedge accounting continues for the remainder of the hedging relationship).

For cash flow hedge, any gain or loss recognised in other comprehensive income and accumulated in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in profit or loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognised immediately in profit or loss.

3. Segment Information

Information reported to the chief operating decision makers, being the chief executive officer of the Company (the "CEO"), for the purposes of resource allocation and performance assessment among segments focuses specifically on different type of goods and services.

Segment profit represents the profit earned by each segment without allocation of central administration costs, distribution and selling expenses, share of results of associates and joint ventures, other income, other gains and losses and finance costs. This is the measure reported to the CEO for the purposes of resource allocation and performance assessment.

Inter-segment sales are charged at prevailing market rates.

Disaggregation of revenue

	Six months ended 30 June 2020			Six months ended 30 June 2019		
	Sales of goods RMB million	**Provision of services RMB million**	**Total RMB million**	Sales of good RMB million	Provision of services RMB million	Total RMB million
Types of goods or services						
Retail gas sales business	**18,191**	**–**	**18,191**	20,332	–	20,332
Sales of integrated energy and services	**1,873**	**228**	**2,101**	788	231	1,019
Wholesale of gas	**7,919**	**–**	**7,919**	9,330	–	9,330
Construction and installation	**–**	**2,669**	**2,669**	–	3,626	3,626
Value added business	**551**	**112**	**663**	897	140	1,037
Total	**28,534**	**3,009**	**31,543**	31,347	3,997	35,344

CEO makes decisions according to operating results of each segment. No analysis of segment asset and segment liability is presented as CEO does not regularly review such information for the purposes of resources allocation and performance assessment. Therefore, only segment revenue and segment results are presented.

3. Segment Information *(continued)*

The following is an analysis of the Group's revenue and results by reportable segments which are also the operating segments for the periods under review:

Six months ended 30 June 2020

	Retail gas sales business RMB million	Sales of integrated energy and services RMB million	Wholesale of gas RMB million	Construction and installation RMB million	Value added business RMB million	Total RMB million
Segment revenue	24,559	2,120	17,034	3,027	2,340	49,080
Inter-segment sales	(6,368)	(19)	(9,115)	(358)	(1,677)	(17,537)
Revenue from external customers	18,191	2,101	7,919	2,669	663	31,543
Segment profit before depreciation and amortisation	3,618	483	138	1,627	567	6,433
Depreciation and amortisation	(582)	(72)	(2)	(174)	(1)	(831)
Segment profit	3,036	411	136	1,453	566	5,602

Six months ended 30 June 2019

	Retail gas sales business RMB million	Sales of integrated energy and services RMB million	Wholesale of gas RMB million	Construction and installation RMB million	Value added business RMB million	Total RMB million
Segment revenue	26,787	1,148	15,523	4,341	3,397	51,196
Inter-segment sales	(6,455)	(129)	(6,193)	(715)	(2,360)	(15,852)
Revenue from external customers	20,332	1,019	9,330	3,626	1,037	35,344
Segment profit before depreciation and amortisation	3,262	264	41	2,039	660	6,266
Depreciation and amortisation	(488)	(58)	(3)	(118)	(1)	(668)
Segment profit	2,774	206	38	1,921	659	5,598

Substantially all of the Group's revenue are generated from the PRC. For the six months ended 30 June 2020, the revenues from PRC and overseas were RMB31,462 million (six months ended 30 June 2019: RMB35,251 million) and RMB81 million (six months ended 30 June 2019: RMB93 million), respectively.

4. OTHER INCOME

	Six months ended 30 June	
	2020	2019
	RMB million	RMB million
Other income mainly includes:		
Incentive subsidies (note)	**140**	120
Dividends income from financial assets at fair value through profit or loss ("FVTPL")	**48**	62
Interest income on bank deposits	**37**	18
Interest income on loan receivable from joint ventures and associates	**17**	45
Interest income on loan receivables from third parties	**20**	17
Rental income from equipment	**15**	21
Rental income from investment properties	**5**	5
Sale of proprietary technology	**–**	3

Note: The amount mainly represents refunds of various taxes as incentives and other incentives related to the Group's operation by the government authorities in various cities of the PRC.

5. Other Gains and Losses

	Six months ended 30 June	
	2020	2019
	RMB million	RMB million
Net gain of financial assets/liabilities at fair value (Note 13)	**80**	827
Loss on foreign exchange, net (note)	**(138)**	(23)
Impairment losses under expected credit loss model, net of reversal:		
– Trade and other receivables	**(41)**	(39)
– Contract assets	**(1)**	(2)
– Amounts due from associates/joint ventures/related companies	**(1)**	15
Impairment loss in respect of property, plant and equipment	**(48)**	–
Net (loss) gain on disposal of:		
– Property, plant and equipment	**(48)**	(16)
– Right-of-use assets	**5**	17
– Subsidiaries	**(42)**	–
– An associate	**–**	(16)
Bargain purchase gain on acquisition of businesses	**–**	15
Release of exchange reserve to profit or loss upon deregistration of a subsidiary	**–**	(3)
Gain on remeasurement of interests in joint ventures previously held	**–**	11
Change in fair value of investment properties	**–**	7
	(234)	793

Note: Included in the amount for the six months ended 30 June 2020 is an exchange loss of approximately RMB155 million (six months ended 30 June 2019: approximately RMB1 million) arising from the translation of senior notes, unsecured bonds and bank loans denominated in United States Dollar ("USD") and Hong Kong Dollar ("HK$") to RMB.

6. Finance Costs

	Six months ended 30 June 2020 RMB million	2019 RMB million
Interest on:		
Bank and other loans	**169**	207
Senior notes	**77**	77
Corporate bonds	**47**	69
Unsecured bonds	**72**	77
Lease liabilities	**15**	18
	380	448
Less: Amount capitalised under construction in progress	**(78)**	(73)
	302	375
Fair value loss reclassified from equity on foreign currency derivative designated as cash flow hedges for USD debts	**18**	–
	320	375

7. Profit Before Tax

	Six months ended 30 June 2020 RMB million	2019 RMB million
Profit before tax has been arrived at after charging:		
Depreciation and amortisation:		
– property, plant and equipment	**791**	637
– intangible assets	**148**	111
– right-of-use assets	**87**	86
Total depreciation and amortisation (note)	**1,026**	834

Note: The amount of total depreciation and amortisation included in cost of sales, administrative expenses and distribution and selling expenses are as follows:

	Six months ended 30 June 2020 RMB million	2019 RMB million
Depreciation and amortisation included in:		
Cost of sales	**831**	668
Administrative expenses	**177**	142
Distribution and selling expenses	**18**	24
	1,026	834

8. Income Tax Expense

	Six months ended 30 June	
	2020	2019
	RMB million	RMB million
Current tax	**758**	853
Withholding tax	**7**	40
Overprovision of withholding tax in prior years	**(71)**	–
	694	893
Deferred tax	**215**	165
	909	1,058

As the major operating income of the Group are sourced from the PRC, the tax charge substantially represents the PRC Enterprise Income Tax for both periods. According to the PRC Enterprise Income Tax Law and its implementation regulation, the PRC enterprise is subject to 25% tax rate.

Certain subsidiaries of the Company are qualified as "High and New Tech Enterprises", which are subject to PRC enterprise income tax at the preferential rate of 15% of the estimated assessable profit as determined in accordance with relevant tax rules and regulations in the PRC. This preferential rate could be applied for three years and the subsidiaries are eligible to apply the tax concession again upon expiry of the three-year period.

9. Dividend

The final dividend in respect of fiscal year 2019 of HK$1.67 (equivalent to approximately RMB1.50) per ordinary share (six months ended 30 June 2019: final dividend in respect of fiscal year 2018 of HK$1.19 (equivalent to approximately RMB1.04) per ordinary share) amounting to approximately RMB1,719 million (six months ended 30 June 2019: RMB1,176 million) were declared on 16 March 2020 and paid on 22 July 2020.

The Directors do not recommend the payment of an interim dividend for the six months ended 30 June 2020 (six months ended 30 June 2019: nil).

10. Earnings Per Share

The calculation of the basic and diluted earnings per share attributable to the owners of the Company is based on the following data:

	Six months ended 30 June	
	2020	2019
	RMB million	RMB million
Earnings		
Earnings for the purpose of basic and diluted earnings per share	**2,693**	3,362

	Six months ended 30 June	
	2020	2019
	'000	'000
Number of shares		
Weighted average number of ordinary shares for the purpose of basic earnings per share	**1,122,988**	1,123,248
Effect of dilutive potential ordinary shares:		
– Share options	**2,313**	2,741
Weighted average number of ordinary shares for the purpose of diluted earnings per share	**1,125,301**	1,125,989

Diluted earnings per share for the six months ended 30 June 2020 and 2019 are calculated assuming all dilutive potential ordinary shares were converted.

11. Property, Plant and Equipment and Right-Of-Use Assets

During the six months ended 30 June 2020, the Group acquired property, plant and equipment and right-of-use assets amounting to approximately RMB2,324 million and RMB91 million (six months ended 30 June 2019: RMB2,861 million and RMB158 million) respectively.

In addition, through acquisition of subsidiaries and businesses, the Group's property, plant and equipment and right-of-use assets increased by approximately RMB204 million and RMB35 million (six months ended 30 June 2019: RMB695 million and RMB92 million) respectively during the current period.

During the six months ended 30 June 2020, the Group entered into several new agreements with lease terms from 1 month to 20 years. On lease commencement, the Group recognised right-of-use assets of RMB29 million (six months ended 30 June 2019: RMB20 million) and lease liabilities of RMB29 million (six months ended 30 June 2019: RMB20 million).

Impairment assessment

The Group regularly performs impairment assessment on the non-financial assets and takes into account of the potential impact of the COVID-19 pandemic. The assessment includes the best estimates of the unknown future impacts of the pandemic that is reasonably available as of the reporting date. During the current period, the Group recognised an impairment loss of RMB48 million in respect of property, plant and equipment.

12. Intangible Assets

During the six months ended 30 June 2020, the Group acquired intangible assets amounting to approximately RMB50 million (six months ended 30 June 2019: RMB24 million).

In addition, through acquisition of subsidiaries and businesses, the Group's intangible assets increased by approximately RMB225 million (six months ended 30 June 2019: RMB351 million).

13. Financial Assets/Liabilities at Fair Value

	At 30 June 2020 RMB million	At 31 December 2019 RMB million
Financial assets under cash flow hedge		
Foreign currency derivative contracts (note a)	**221**	–
Financial assets at FVTPL		
Foreign currency derivative contracts (note a)	**–**	100
Commodity derivative contracts (note b)	**1,913**	573
Listed equity interest in Shanghai Dazhong Public Utilities (Group) Co., Ltd ("Shanghai Utilities") (note c)	**292**	287
1.13% equity interest in Sinopec Marketing Co., Ltd ("Sinopec Marketing") (note d)	**4,170**	4,170
Unlisted wealth management products	**–**	16
Other unlisted equity securities (note e)	**374**	384
	6,970	5,530
Financial liabilities under cash flow hedge		
Foreign currency derivative contracts (note a)	**(6)**	–
Commodity derivative contracts (note b)	**(201)**	–
Financial liabilities at FVTPL		
Commodity derivative contracts (note b)	**(2,128)**	(746)
	(2,335)	(746)
Analysed for reporting purpose as:		
Assets		
Current portion	**910**	361
Non-current portion	**6,060**	5,169
Liabilities		
Current portion	**789**	416
Non-current portion	**1,546**	330

13. Financial Assets/Liabilities at Fair Value *(continued)*

	Six months ended 30 June	
	2020	2019
	RMB million	RMB million
Net unrealised gain (loss)		
Financial assets/liabilities under cash flow hedge		
Foreign currency derivative contracts (note a)	**4**	–
Commodity derivative contracts (note b)	**(18)**	–
Financial assets/liabilities at FVTPL		
Foreign currency derivative contracts (note a)	**–**	80
Commodity derivative contracts (note b)	**(50)**	647
Listed equity interest in Shanghai Utilities (note c)	**5**	23
1.13% equity interest in Sinopec Marketing (note d)	**–**	(41)
Other unlisted equity securities (note e)	**(10)**	22
	(69)	731
Net realised gain (loss)		
Financial assets/liabilities at FVTPL		
Foreign currency derivative contracts (note a)	**–**	(43)
Commodity derivative contracts (note b)	**149**	139
	149	96
	80	827

Notes:

a. The Group is exposed to exchange rate risk mainly arising from various bonds and bank loans denominated in USD. To manage and mitigate the foreign exchange exposure, the Group entered into various foreign currency derivative contracts (the "Foreign Currency Derivatives") with certain financial institutions. As at 30 June 2020, the Foreign Currency Derivatives have a total notional amount of USD950 million (31 December 2019: USD785 million), of which the maturity dates match to the maturity dates of certain debts denominated in USD. The Foreign Currency Derivatives will enable the Group to buy USD at the predetermined RMB/USD exchange rates on maturity dates. The Foreign Currency Derivatives are designated as hedging instruments from 1 January 2020. Accordingly, they are accounted for under hedge accounting.

b. Since 2016, the Group has commitments to acquire LNG from three international suppliers. The delivery of LNG under such arrangements commenced in 2018 and last for 5 to 10 years. The Group is obliged to make "take-or-pay" payment to suppliers for the quantity contracted but not delivered.

   In the opinion of the Directors, such LNG purchase arrangements are entered into and continued to be held for the purpose of the receipt of a non-financial item in accordance with the Group's expected purchase, sale and usage.

   In order to manage and mitigate the commodity price risk, the Group entered into various commodity derivative contracts (the "Commodity Derivatives") against the underlying LNG contracts with certain financial institutions in order to stabilise its future LNG purchase costs. Certain Commodity Derivatives are designated as hedging instruments and accounted for under hedge accounting from 1 January 2020.

c. The above listed investment represents 4.38% of the total issued share capital of Shanghai Utilities (1635.HK).

d. The above investment represents 1.13% unlisted equity interest in Sinopec Marketing. During the current period, the Group recognised a dividend income of approximately RMB48 million (six months ended 30 June 2019: RMB62 million) from Sinopec Marketing.

e. The above unlisted investments represent investments in unlisted equity securities issued by private entities.

14. Trade and Other Receivables

The following is an aged analysis of trade receivables, net of allowance for credit losses, presented based on invoice date at the end of the reporting period:

	At 30 June 2020 RMB million	At 31 December 2019 RMB million
0 to 3 months	**1,462**	1,792
4 to 6 months	**382**	76
7 to 9 months	**194**	192
10 to 12 months	**39**	55
More than one year	**229**	247
Total trade receivables	**2,306**	2,362
Bills receivable (note)	**1,066**	1,413
Other receivables	**700**	472
Loan receivables	**730**	191
Less: Allowance for credit losses	**(21)**	(18)
Deductible input value added tax and prepayment of other taxes and charges	**1,481**	1,589
Advances to suppliers and prepayments	**1,420**	1,531
Total trade and other receivables	**7,682**	7,540
Analysed for reporting purpose as:		
Current portion	**7,647**	7,492
Non-current portion	**35**	48

Note: The bills receivable were endorsed by PRC banks for guarantee payments and the default risk is considered to be minimal.

15. Restricted Bank Deposits

The restricted bank deposits carry fixed interest rate ranging from 0.30% to 3.71% (31 December 2019: 0.30% to 3.71%) per annum. Except for the mandatory reserves in the People's Bank of China ("PBOC") amounting to RMB392 million (31 December 2019: RMB384 million), other restricted bank deposits will be released upon the settlement of bank loans, the expiry of purchase contracts or operation rights. The mandatory reserves in the PBOC classified as non-current assets were deposits placed by ENN Finance, a wholly-owned subsidiary of the Company, and the reserves amount is subject to change with respect to the savings accepted by ENN Finance and the PBOC reserve rate is adjusted from time to time.

16. Amounts Due from/to Associates

Included in the amounts due from/to associates are trade receivables, net of impairment, amounting to RMB431 million (31 December 2019: RMB473 million) and trade payables amounting to RMB60 million (31 December 2019: RMB84 million) and the aged analysis based on invoice date, which approximated the respective revenue recognition date, at the end of the reporting period is as follows:

	At 30 June 2020 RMB million	At 31 December 2019 RMB million
Trade receivables		
0 to 3 months	**220**	189
4 to 6 months	**40**	94
7 to 9 months	**85**	88
10 to 12 months	**63**	26
More than one year	**23**	76
	431	473
Trade payables		
0 to 3 months	**34**	81
4 to 6 months	**12**	2
7 to 9 months	**14**	–
More than one year	**–**	1
	60	84

17. Amounts Due from/to Joint Ventures

Included in the amounts due from/to joint ventures are trade receivables, net of impairment, amounting to RMB654 million (31 December 2019: RMB653 million) and trade payables amounting to RMB697 million (31 December 2019: RMB585 million) and the aged analysis based on invoice date, which approximated the respective revenue recognition date, at the end of the reporting period is as follows:

	At 30 June 2020 RMB million	At 31 December 2019 RMB million
Trade receivables		
0 to 3 months	**449**	430
4 to 6 months	**17**	35
7 to 9 months	**35**	60
10 to 12 months	**18**	31
More than one year	**135**	97
	654	653
Trade payables		
0 to 3 months	**130**	500
4 to 6 months	**61**	35
7 to 9 months	**482**	6
10 to 12 months	**8**	3
More than one year	**16**	41
	697	585

18. Amounts Due from/to Related Companies

Included in the amounts due from/to related companies are trade receivables, net of impairment, amounting to RMB198 million (31 December 2019: RMB160 million) and trade payables amounting to RMB610 million (31 December 2019: RMB1,026 million) and the aged analysis based on invoice date, which approximated the respective revenue recognition date, at the end of the reporting period is as follows:

	At 30 June 2020 RMB million	At 31 December 2019 RMB million
Trade receivables		
0 to 3 months	**88**	38
4 to 6 months	**9**	16
7 to 9 months	**15**	13
10 to 12 months	**4**	26
More than one year	**82**	67
	198	160
Trade payables		
0 to 3 months	**326**	674
4 to 6 months	**81**	137
7 to 9 months	**58**	62
10 to 12 months	**21**	36
More than one year	**124**	117
	610	1,026

The related companies are controlled by Mr. Wang Yusuo ("Mr. Wang"), who is a director and shareholder of the Company with significant influence.

19. Trade and Other Payables

The following is an aged analysis, presented based on invoice date at the end of the reporting period:

	At 30 June 2020 RMB million	At 31 December 2019 RMB million
0 to 3 months	**2,946**	3,559
4 to 6 months	**889**	1,135
7 to 9 months	**471**	238
10 to 12 months	**138**	161
More than one year	**637**	605
Trade payables	**5,081**	5,698
Accrued charges and other payables	**1,744**	1,937
	6,825	7,635

20. Bank and Other Loans

During six months ended 30 June 2020, the Group obtained new bank loans in the amount of RMB6,250 million (six months ended 30 June 2019: RMB5,408 million) and made repayments in the amount of RMB4,944 million (six months ended 30 June 2019: RMB8,074 million). The loans bear interest at the range from 0.93% to 7.50% (31 December 2019: 2.32% to 7.50%) per annum. These proceeds were used to finance the capital expenditure and general working capital of the Group.

At 30 June 2020, certain assets of the Group with aggregate carrying value of RMB525 million (31 December 2019: RMB790 million) were pledged as security for bank and other loans, bills facilities and contracts granted to the Group, its associates and joint ventures.

In addition, the Group has also pledged its rights to receive construction and installation and gas supply fee income of certain subsidiaries in favour of banks to secure banking facilities amounting to RMB640 million (31 December 2019: RMB868 million) granted to the Group, of which RMB428 million (31 December 2019: RMB187 million) was utilised up to 30 June 2020.

At 30 June 2020, bank loans related to bills receivable discounted to the banks are amounting to RMB417 million.

21. Corporate Bonds

Details of the terms of the corporate bonds issued are set out below:

Date of issuance	**22 January 2019**	**8 March 2019**	**11 November 2019**
Principal amount	**RMB500 million**	**RMB1,000 million**	**RMB600 million**
Interest rate	**4.19%**	**4.20%**	**3.98%**
Maturity date	**22 January 2022**	**8 March 2022**	**12 November 2022**
Net proceeds after deducting issuance costs	**RMB498 million**	**RMB996 million**	**RMB599 million**
Date of listing on the Shanghai Stock Exchange	**20 February 2019**	**29 March 2019**	**22 November 2019**
Effective interest rate after the adjustment for transaction costs	**4.36%**	**4.36%**	**4.04%**

22. Share Capital

During the six months ended 30 June 2020, 200,000 shares were issued at the exercise price of HK$16.26 per ordinary share under Scheme 2002, 147,500 shares (six months ended 30 June 2019: 304,100 shares) and 37,500 shares were issued at the exercise price of HK$40.34 and HK$76.36 per ordinary share under Scheme 2012, respectively, in relation to the exercise of outstanding share options as set out in Note 23. These shares rank pari passu with the existing shares in all respects.

Save as disclosed above and in Note 23, none of the Company's subsidiaries purchased, sold or redeemed any of the Company's listed securities up to 30 June 2020.

23. Share Based Payments Transactions

The Company has adopted a share award scheme pursuant to the board resolution of the Company dated 30 November 2018 (the "Share Award Scheme").

The Company has adopted share option schemes pursuant to an ordinary resolution passed at an extraordinary general meeting of the Company held on 21 May 2002 (the "Scheme 2002") and an annual general meeting of the Company held on 26 June 2012 (the "Scheme 2012"). The remaining 200,000 share options under the Scheme 2002 were exercised during the current period.

a. Share Award Scheme

Pursuant to the Share Award Scheme, the Company had contracted with a trustee to establish a trust (the "Trust") on 12 March 2019. The board of the Directors (the "Board") may from time to time during the effective period of the Share Award Scheme (a term of 10 years commencing on the adoption of this scheme or early terminated) contribute funds to the Trust and instruct the trustee to purchase shares of the Company on the Stock Exchange or in off-market transactions. Shares purchased and held by the Trust are non-transferrable and have no voting rights. Shares will be granted to selected employees of any members of the Group pursuant to the terms and trust deed of the Share Award Scheme. Vesting of the shares granted to selected employees is conditional upon the fulfilment of service and/or performance as specified by the Board.

During the six months ended 30 June 2020, the trustee, pursuant to the terms and trust deed of the Share Award Scheme, purchased a total of 270,000 shares (six months ended June 30 2019: 2,415,100 shares). The cost of the shares purchased was recognised in equity as treasury stocks. As at 30 June 2020, the Board had neither decided nor selected employee for the granting of awarded shares.

b. Scheme 2012

On 9 December 2015, the Company granted share options to the Directors and certain employees (the "2015 Grantees") to subscribe for a total of 12,000,000 ordinary shares of the Company under the Scheme 2012. Among the share options granted above, 2,659,000 share options were granted to the Directors and the remaining were granted to certain employees of the Group. Vesting of the share options is conditional upon the fulfilment of certain vesting conditions as set out in the respective offer letters of the 2015 Grantees, which may involve fulfilment of performance rating.

On 28 March 2019, the Company granted share options to Directors and certain employees of the Company, and business consultants who contribute to the success of the Company (the "2019 Grantees") to subscribe for a total of 12,328,000 ordinary shares of the Company under the Scheme 2012. Among the share options granted above, 2,480,000 share options were granted to the Directors and the remaining were granted to certain employees of the Group and business consultants. Vesting of the share options is conditional upon the fulfilment of certain vesting conditions as set out in the respective offer letters of the 2019 Grantees, which may involve fulfilment of performance rating.

2015 Grantees and 2019 Grantees should continue in office and achieve the designated vesting conditions from the date of grant till the exercisable date. Thus, the vesting period of the share options is from the date of the grant until the commencement of the exercise period.

23. Share Based Payments Transactions *(continued)*

b. Scheme 2012 *(continued)*

The following tables disclose details of the Company's share options held by the grantees and movements in such holdings under the share option scheme during the current period:

		Date of grant	Exercise period	Exercise price (HK$)	Number of options Outstanding at 1.1.2020	Exercised during the period	Forfeited during the period	Reclassified during the period	Outstanding at 30.6.2020
Scheme 2012 – batch 1									
Directors	Tranche 1	9.12.2015	1.4.2017 to 8.12.2025	40.34	230,500	–	–	35,500	266,000
	Tranche 2	9.12.2015	1.4.2018 to 8.12.2025	40.34	442,575	(6,700)	–	(97,500)	338,375
	Tranche 3	9.12.2015	1.4.2019 to 8.12.2025	40.34	538,775	(15,000)	–	(97,500)	426,275
	Tranche 4	9.12.2015	1.4.2020 to 8.12.2025	40.34	581,250	(15,000)	(96,575)	(14,500)	455,175
Employees	Tranche 1	9.12.2015	1.4.2017 to 8.12.2025	40.34	205,250	(22,900)	–	(35,500)	146,850
	Tranche 2	9.12.2015	1.4.2018 to 8.12.2025	40.34	366,261	(28,750)	–	97,500	435,011
	Tranche 3	9.12.2015	1.4.2019 to 8.12.2025	40.34	560,474	(30,650)	(17,750)	97,500	609,574
	Tranche 4	9.12.2015	1.4.2020 to 8.12.2025	40.34	1,425,000	(28,500)	(426,950)	14,500	984,050
Subtotal					4,350,085	(147,500)	(541,275)	–	3,661,310
Exercisable at the end of the period									3,661,310
Weighted average exercise price									HK$40.34
Scheme 2012 – batch 2									
Directors	Tranche 1	28.3.2019	1.4.2020 to 27.3.2029	76.36	15,000	–	–	–	15,000
	Tranche 2	28.3.2019	1.4.2021 to 27.3.2029	76.36	768,200	–	–	(120,000)	648,200
	Tranche 3	28.3.2019	1.4.2022 to 27.3.2029	76.36	768,400	–	–	(120,000)	648,400
	Tranche 4	28.3.2019	1.4.2023 to 27.3.2029	76.36	768,400	–	–	(120,000)	648,400
Employees	Tranche 1	28.3.2019	1.4.2020 to 27.3.2029	76.36	1,061,300	(37,500)	(246,000)	–	777,800
	Tranche 2	28.3.2019	1.4.2021 to 27.3.2029	76.36	2,539,900	–	(250)	120,000	2,659,650
	Tranche 3	28.3.2019	1.4.2022 to 27.3.2029	76.36	2,541,400	–	(250)	120,000	2,661,150
	Tranche 4	28.3.2019	1.4.2023 to 27.3.2029	76.36	2,541,400	–	(250)	120,000	2,661,150
Business Consultants	Tranche 1	28.3.2019	1.4.2020 to 27.3.2029	76.36	201,000	–	–	–	201,000
	Tranche 2	28.3.2019	1.4.2021 to 27.3.2029	76.36	201,000	–	–	–	201,000
	Tranche 3	28.3.2019	1.4.2022 to 27.3.2029	76.36	201,000	–	–	–	201,000
	Tranche 4	28.3.2019	1.4.2023 to 27.3.2029	76.36	201,000	–	–	–	201,000
Subtotal					11,808,000	(37,500)	(246,750)	–	11,523,750
Exercisable at the end of the period									993,800
Weighted average exercise price									HK$76.36
Total					16,158,085	(185,000)	(788,025)	–	15,185,060

23. Share Based Payments Transactions *(continued)*

b. Scheme 2012 *(continued)*

The following tables disclose details of the Company's share options held by the grantees and movements in such holdings under the share option scheme during the prior period:

		Date of grant	Exercise period	Exercise price (HK$)	Outstanding at 1.1.2019	Number of options Granted during the period	Exercised during the period	Forfeited during the period	Outstanding at 30.6.2019
Scheme 2012 – batch 1									
Directors	Tranche 1	9.12.2015	1.4.2017 to 8.12.2025	40.34	230,750	–	(250)	–	230,500
	Tranche 2	9.12.2015	1.4.2018 to 8.12.2025	40.34	538,750	–	(65,250)	(22,625)	450,875
	Tranche 3	9.12.2015	1.4.2019 to 8.12.2025	40.34	538,750	–	–	–	538,750
	Tranche 4	9.12.2015	1.4.2020 to 8.12.2025	40.34	538,750	–	–	–	538,750
Employees	Tranche 1	9.12.2015	1.4.2017 to 8.12.2025	40.34	406,900	–	(3,250)	–	403,650
	Tranche 2	9.12.2015	1.4.2018 to 8.12.2025	40.34	1,030,850	–	(124,350)	(125,302)	781,198
	Tranche 3	9.12.2015	1.4.2019 to 8.12.2025	40.34	1,727,750	–	(111,000)	(487,938)	1,128,812
	Tranche 4	9.12.2015	1.4.2020 to 8.12.2025	40.34	1,727,750	–	–	(175,250)	1,552,500
Subtotal					6,740,250	–	(304,100)	(811,115)	5,625,035
Exercisable at the end of the period									3,533,785
Weighted average exercise price									HK$40.34
Scheme 2012 – batch 2									
Directors	Tranche 1	28.3.2019	1.4.2020 to 27.3.2029	76.36	–	105,000	–	–	105,000
	Tranche 2	28.3.2019	1.4.2021 to 27.3.2029	76.36	–	791,600	–	–	791,600
	Tranche 3	28.3.2019	1.4.2022 to 27.3.2029	76.36	–	791,700	–	–	791,700
	Tranche 4	28.3.2019	1.4.2023 to 27.3.2029	76.36	–	791,700	–	–	791,700
Employees	Tranche 1	28.3.2019	1.4.2020 to 27.3.2029	76.36	–	1,061,300	–	–	1,061,300
	Tranche 2	28.3.2019	1.4.2021 to 27.3.2029	76.36	–	2,606,500	–	–	2,606,500
	Tranche 3	28.3.2019	1.4.2022 to 27.3.2029	76.36	–	2,608,100	–	–	2,608,100
	Tranche 4	28.3.2019	1.4.2023 to 27.3.2029	76.36	–	2,608,100	–	–	2,608,100
Business Consultants	Tranche 1	28.3.2019	1.4.2020 to 27.3.2029	76.36	–	241,000	–	–	241,000
	Tranche 2	28.3.2019	1.4.2021 to 27.3.2029	76.36	–	241,000	–	–	241,000
	Tranche 3	28.3.2019	1.4.2022 to 27.3.2029	76.36	–	241,000	–	–	241,000
	Tranche 4	28.3.2019	1.4.2023 to 27.3.2029	76.36	–	241,000	–	–	241,000
Subtotal					–	12,328,000	–	–	12,328,000
Exercisable at the end of the period									–
Weighted average exercise price									HK$76.36
Total					6,740,250	12,328,000	(304,100)	(811,115)	17,953,035

23. Share Based Payments Transactions *(continued)*

b. Scheme 2012 *(continued)*

Exercise price of the share options granted on 9 December 2015 is HK$40.34 per share. The total fair value of the options granted on 9 December 2015 calculated by using the binomial model was HK$194 million.

Exercise price of the share options granted on 28 March 2019 is HK$76.36 per share. The total fair value of the options granted on 28 March 2019 calculated by using the binomial model was HK$336 million.

As at 30 June 2020, the number of outstanding share options is 15,185,060 (31 December 2019: 16,158,085). During the current period, the Group recognised share-based payment expenses of RMB36 million (six months ended 30 June 2019: RMB26 million).

24. Hedging Reserve

The hedging reserve includes cash flow hedge reserve and cost of hedging reserve. The following table provides a reconciliation of the hedging reserve in respect of foreign exchange risk and commodity risk during the six months ended 30 June 2020.

	Cash flow hedge reserve		Cost of hedging reserve		
	Foreign exchange risk	Commodity risk	Foreign exchange risk	Commodity risk	Total
	RMB million	RMB million	RMB million	RMB million	RMB million
At 1 January 2020	–	–	–	–	–
Amortisation/reclassified to profit or loss	(41)	–	(11)	–	(52)
Net fair value gain (loss) on hedging instruments	91	(224)	(15)	(30)	(178)
At 30 June 2020	50	(224)	(26)	(30)	(230)

25. Acquisition of Businesses

Acquisition date	Company acquired	Registered capital acquired	Consideration RMB million	Nature of business
26 March 2020	浙江省浦江高峰管道燃氣有限公司 (“Gaofeng”)	90.00%	155	Retail gas sales business
31 March 2020	內蒙古華億能源股份有限公司 (“Huayi”)	100.00%	180	Retail gas sales business

Gaofeng and Huayi were acquired with the objective of expansion in market coverage of the Group’s business.

25. Acquisition of Businesses *(continued)*

The provisional amounts of fair value of the assets and liabilities at the date of acquisition are as follows:

	Gaofeng RMB million	Huayi RMB million	Total RMB million
Non-current assets			
Property, plant and equipment	67	124	191
Intangible assets	163	54	217
Right-of-use assets	13	22	35
Current assets			
Inventories	4	3	7
Trade and other receivables	38	37	75
Contract assets	2	–	2
Cash and cash equivalents	38	1	39
Current liabilities			
Trade and other payables	(87)	(34)	(121)
Contract liabilities	(10)	(25)	(35)
Bank and other loans – due within one year	(50)	(2)	(52)
Non-current liabilities			
Deferred tax liabilities	(41)	(21)	(62)
Net assets acquired	137	159	296
Goodwill arising on acquisition (determined on a provisional basis)			
Total consideration	155	180	335
Add: Non-controlling interests	9	–	9
Less: Fair value of identified net assets acquired	(137)	(159)	(296)
	27	21	48
Total consideration satisfied by:			
Cash	153	63	216
Consideration payables	2	117	119
	155	180	335
Net cash outflow arising on acquisition:			
Cash consideration paid	(153)	(63)	(216)
Less: Cash and cash equivalents acquired	38	1	39
	(115)	(62)	(177)

25. Acquisition of Businesses *(continued)*

Impact of acquisition on the results of the Group

The fair value of property, plant and equipment and intangible assets at the date of acquisition was provisional and pending for the valuation carried out by an independent firm of professional valuer.

Included in the profit for the six months ended 30 June 2020 was RMB5 million of profit attributable to the additional businesses generated by Gaofeng and Huayi. Revenue for the six months ended 30 June 2020 includes RMB68 million generated from Gaofeng and Huayi.

Had the acquisitions of Gaofeng and Huayi been completed on 1 January 2020, the revenue of the Group for the six months ended 30 June 2020 would have been approximately RMB31,609 million, and the profit for the period would have been approximately RMB3,162 million. The pro forma information is for illustrative purposes only and is not necessarily an indication of revenue and results of operations of the Group that actually would have been achieved had the acquisitions been completed on 1 January 2020, nor is intended to be a projection of future results.

In determining the "pro-forma" revenue and profit of the Group, had Gaofeng and Huayi been acquired on 1 January 2020, the Directors have calculated the depreciation and amortisation of property, plant and equipment and intangible assets acquired on the basis of the fair values rather than the carrying amounts recognised in the pre-acquisition financial statements.

26. Acquisition of Assets Through Acquisition of Subsidiaries

To facilitate the Group's overall business development, the Group will from time to time liaise with the local PRC governments and potential vendors to acquire the local rights of operation, gas assets and integrated energy related assets through acquisition of subsidiaries. During the six months ended 30 June 2020, the Group has acquired assets through the acquisitions of the following subsidiary:

On 7 January 2020, the Group acquired 80% of the equity interest of 澄城縣華興燃氣有限公司 at a consideration of RMB6 million.

The transaction was accounted for as acquisition of asset through acquisition of a subsidiary and the fair value of the consideration allocated to the assets and liabilities acquired are as follows:

	RMB million
Non-current assets	
Property, plant and equipment	13
Intangible assets	8
Current assets	
Trade and other receivables	2
Current liabilities	
Trade and other payables	(14)
Contract liabilities	(1)
Net assets acquired	8
Less: Non-controlling interests	(2)
Total consideration	6
Total consideration satisfied by:	
Cash	5
Consideration payables	1
	6
Net cash outflow arising on acquisition:	
Cash consideration paid	(5)

27. Disposal of Subsidiaries

On 30 April 2020, the Group disposed of 100% equity interest in 溫縣新奧交通清潔能源有限公司 at a cash consideration of RMB2 million.

On 5 June 2020, the Group disposed of 55% equity interest in 東莞市新奧車用燃氣發展有限公司 at a cash consideration of RMB55 million.

On 10 June 2020, the Group disposed of 98.18% equity interest in 邢台新奧車用燃氣有限公司 at a cash consideration of RMB13 million.

The net assets at the dates of disposal were as follows:

	RMB million
Non-current assets	
Property, plant and equipment	163
Right-of-use assets	12
Interests in a joint venture	13
Current assets	
Inventories	1
Trade and other receivables	17
Cash and cash equivalents	3
Current liabilities	
Trade and other payables	(17)
Contract liabilities	(2)
Net assets	190
Less: Non-controlling interests	(78)
Net assets attributable to the owners of the Company disposed of	112

The loss on disposal of subsidiaries recognised in profit or loss was calculated as below:

	RMB million
Consideration received	40
Consideration receivable	30
Less: Net assets attributable to owners of the Company derecognised	(112)
Loss on disposal of subsidiaries	(42)
Net cash inflow arising from the disposal:	
Cash consideration received	40
Less: Cash and cash equivalents disposed of	(3)
	37

28. Fair Value Measurement of Financial Instruments

The following table gives information about how the fair values of financial instruments are determined (in particular, the valuation technique(s) and inputs used), as well as the level of the fair value hierarchy into which the fair value measurements are categorised (levels 1 to 3) based on the degree to which the inputs to the fair value measurements is observable.

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active market for identical assets or liabilities;
- Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The Group measures its derivative financial instruments, financial assets at FVTPL and equity instruments at FVTOCI at the end of each reporting period on a recurring basis:

	Fair value as at 30 June 2020 RMB million	Fair value as at 31 December 2019 RMB million	Fair value hierarchy	Valuation technique and key input
Financial assets				
Derivative financial instruments	**2,134**	673	Level 2	Discounted cash flow for swap Future cash flows are estimated based on forward commodity price and forward exchange rates at settlement date, contracted strike rate, cap rate and premium payment, discounted at the swap curves expected by various counterparties Black-Scholes Model for option Fair value estimated based on strike price, commodity price, time to expiration, volatility and risk-free interest rate
Listed equity securities, equity interest in Shanghai Utilities	**292**	287	Level 1	Fair values are derived from quoted bid prices in an active market
Unlisted wealth management products	**–**	16	Level 3	Discounted cash flow Future cash flows are estimated based on the recoverable amount expected, discounted at a rate that reflects the credit risk of the counterparty

28. Fair Value Measurement of Financial Instruments *(continued)*

	Fair value as at 30 June 2020 RMB million	31 December 2019 RMB million	Fair value hierarchy	Valuation technique and key input
Financial assets *(continued)*				
1.13% equity interest in Sinopec Marketing	**4,170**	4,170	Level 3	Estimated based on the P/B ratio of comparable listed companies and a liquidity discount rate
Other unlisted equity securities – FVTPL	**374**	384	Level 3	Fair values are derived from price multiples of similar assets that have been traded in the market
Listed equity securities – FVTOCI	**65**	–	Level 1	Fair values are derived from quoted bid prices in an active market
Unlisted equity securities – FVTOCI	**135**	123	Level 3	Fair values are derived from the fair values of the underlying assets and liabilities held by the investee
Financial liabilities				
Derivative financial instruments	**2,335**	746	Level 2	Discounted cash flow for swap Future cash flows are estimated based on forward commodity price and forward exchange rates at settlement date, contracted strike rate, cap rate and premium payment, discounted at the swap curves expected by various counterparties Black-Scholes Model for option Fair value estimated based on strike price, commodity price, time to expiration, volatility and risk-free interest rate

The Group's 1.13% equity interest in Sinopec Marketing which is classified as financial assets at FVTPL under Level 3 hierarchy amounted to RMB4,170 million as at 30 June 2020. The significant unobservable input is the liquidity discount rate. The higher liquidity discount rate, the lower fair value of the financial assets at FVTPL will be. A 5% increase/decrease in the liquidity discount rate, holding all other variables constant, the fair value of the investment would decrease/increase by RMB26 million as at 30 June 2020.

28. Fair Value Measurement of Financial Instruments *(continued)*

	RMB million
Reconciliation of level 3 fair value measurements of financial assets	
At 1 January 2020 (audited)	**4,693**
Net losses in profit or loss	**(10)**
Purchased	**15**
Disposals	**(16)**
Transfers out of level 3	**(3)**
At 30 June 2020 (unaudited)	**4,679**

Except as detailed in the following table, the Directors consider that the carrying amounts of financial assets and financial liabilities recorded at amortised cost in the condensed consolidated financial statements approximated their fair values:

	At 30 June 2020		At 31 December 2019	
	Carrying amount RMB million	**Fair value RMB million**	Carrying amount RMB million	Fair value RMB million
Financial liabilities:				
Fixed-rate bank and other loans	**8,092**	**7,852**	7,277	7,079
Senior notes	**2,579**	**2,671**	2,539	2,655
Unsecured bonds	**4,234**	**4,331**	4,169	4,216
Corporate bonds	**2,095**	**2,123**	2,094	2,105

In the above table, other than the fair values of bank loans disclosed which are under the fair value hierarchy of Level 3, the rest of the fair values disclosed are under the fair value hierarchy of Level 2. The fair values of the senior notes and unsecured bonds are derived from the quoted prices in over-the-counter market, and the fair value of corporate bonds is derived from the inactive quoted prices in the Shanghai Stock Exchange. The fair values of the rest of the financial liabilities at amortised cost are derived from discounted cash flow technique by reference to the market interest rate of the loans with comparable maturity and credit risk of the respective group entities at the end of the reporting period.

29. Commitments

	At 30 June 2020 RMB million	At 31 December 2019 RMB million
Capital expenditure contracted for but not provided in the condensed consolidated financial statements in respect of		
– acquisition of property, plant and equipment	**939**	1,021
– investments in joint ventures	**580**	495
– investments in associates	**424**	518
– other equity investments	**5**	259

30. Related Party Transactions

Apart from the related party balances as stated in Notes 16, 17 and 18, the Group had the following transactions with certain related parties:

	Six months ended 30 June	
	2020	2019
	RMB million	RMB million
Nature of transaction		
Associates		
– Sales of gas to	**318**	226
– Sales of materials to	**82**	123
– Purchase of gas from	**184**	179
– Purchase of equipment from	**1**	1
– Loan interest received from	**8**	15
– Deposit interest paid to	**1**	1
– Provision of supporting services by	**8**	–
– Provision of gas transportation services by	**22**	23
– Provision of construction and installation services to	**1**	3
Joint ventures		
– Sales of gas to	**878**	788
– Sales of materials to	**80**	120
– Purchase of gas from	**1,806**	2,085
– Provision of gas transportation services to	**189**	211
– Loan interest received from	**9**	30
– Loan interest paid to	**2**	3
– Provision of supporting services to	**4**	1
– Provision of construction services by	**11**	11
– Provision of construction and installation services to	**2**	–
– Deposit interest paid to	**1**	12
– Provision of administrative services by	**4**	–
– Purchase of equipment from	**2**	–
– Lease of vehicles to	**1**	1
– Provision of supporting services by	**–**	2

30. Related Party Transactions *(continued)*

	Six months ended 30 June 2020 RMB million	2019 RMB million
Nature of transaction		
Companies controlled by Mr. Wang		
Transactions exempt from shareholders' approval under Chapter 14A of the Listing Rules:		
– Provision of construction services by	**373**	557
– Purchase of equipment from	**85**	29
– Provision of information technology services by	**54**	56
– Purchase of LNG from	**129**	596
– Provision of LNG terminal usage services by	**211**	–
– Purchase of equity interests from (note)	**–**	100
Transactions fully exempt from shareholders' approval, annual review and all disclosure requirements under Chapter 14A of the Listing Rules:		
– Sales of gas, gasoline and diesel to	**47**	5
– Provision of construction and installation services to	**2**	2
– Provision of property management services by	**9**	8
– Provision of property management services to	**1**	–
– Provision of outsourcing services by	**31**	16
– Lease of premises from	**3**	1
– Lease of premises to	**1**	2
– Sales of materials to	**39**	33
– Provision of administrative services by	**16**	16
– Provision of supporting services to	**27**	19
– Provision of technology services to	**36**	27
– Provision of electronic business services by	**5**	2
– Provision of research and development services to	**–**	4

Note: During the prior period, the Group completed the acquisition of the additional 4.5% equity interest in ENN Finance from a related company controlled by Mr. Wang. The consideration for the acquisition amounted to approximately RMB100 million.

The Company issued senior notes on 13 May 2011 and unsecured bonds on 23 October 2014 and 24 July 2017 and entered into a club loan agreement with various banks on 23 November 2018. The terms and conditions of these debts require Mr. Wang to retain certain percentage of shareholding over the Company, failing which the Company would be required to repay or repurchase all outstanding debts at predetermined prices.

30. Related Party Transactions *(continued)*

Financial guarantee contracts

As at 30 June 2020, the loan facilities utilised by an associate and the joint ventures guaranteed by the Group were approximately RMB633 million (31 December 2019: RMB726 million).

As at 30 June 2020, a related company has provided guarantees to the Group to the extent of RMB40 million (31 December 2019: RMB140 million), of which RMB18 million (31 December 2019: RMB120 million) were utilised by the Group.

Compensation of key management personnel

The compensation to key management personnel during the period is as follows:

	Six months ended 30 June	
	2020	2019
	RMB'000	RMB'000
Short-term employee benefits	**6,776**	6,702
Post-employment benefits	**87**	176
Share-based payments	**6,793**	4,596
	13,656	11,474

Deloitte. 德勤

TO THE SHAREHOLDERS OF ENN ENERGY HOLDINGS LIMITED
(incorporated in the Cayman Islands with limited liability)

Opinion

We have audited the consolidated financial statements of ENN Energy Holdings Limited (the "Company") and its subsidiaries (collectively referred to as the "Group") set out on pages 67 to 176 which comprise the consolidated statement of financial position as at 31 December 2019, and the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

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

Basis for Opinion

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

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How our audit addressed the key audit matter
Impairment assessment of goodwill allocated to integrated energy business	
We identified the impairment assessment of goodwill allocated to integrated energy business (the "Integrated Energy CGU") as a key audit matter due to that the goodwill amounting to RMB1,998 million recognised in relation to the Integrated Energy CGU and the assessment process requires significant judgements and estimates of the Group's management including estimating the future cash flow, profit margins, revenue growth rate and discount rate used in the impairment model. The changes to these may have significant impact on determining whether any impairment is required and the amount of impairment. No impairment loss was recognised as at 31 December 2019. Details of disclosures are set out in Note 20 to the consolidated financial statements.	Our procedures in relation to impairment assessment of goodwill allocated to the Integrated Energy CGU included: • Evaluating management's methodology and models for impairment assessment of goodwill and corroborating the discount rate used through analysing the cost of capital of the Group against comparable corporations with the assistance of internal valuation expert; • Challenging the future cash flows of the Integrated Energy CGU and the process by which they were drawn up, including checking the accuracy of the underlying calculations and the consistency between the forecasts and the latest budgets approved by management; • Comparing the profit margins, short-term and long-term revenue growth rate assumed to the Group's historical performances or external market data where available; and • Evaluating the sensitively analysis performed by management.

Key Audit Matters *(continued)*

Key audit matter	How our audit addressed the key audit matter
Fair value measurement of commodity derivative contracts	
We identified the fair value measurement of commodity derivative contracts (Note 25 to the consolidated financial statements) as a key audit matter due to the significance of the changes in fair value to the consolidated financial statements and the significant judgements associated with the fair value measurement. The fair value measurement of commodity derivative contracts is complex and requires judgments in areas such as estimates of future price curves, market price volatility and counterparty's credit risk. Any changes to these estimates may have significant impact on the fair value.	Our procedures in relation to the fair value measurement of commodity derivative contracts included: • Understanding the design and implementation of key controls relating to valuation of commodity derivative contracts and relevant accounting treatments; • Testing the completeness of commodity derivative contracts by arranging confirmations to the counterparties and inspecting the supporting documents on a sample basis; and • With the assistance of internal valuation expert, evaluating the appropriateness of management's valuation methodology, challenging key inputs involving in determining the fair value of commodity derivative contracts, including the future price curves used, the expected market price volatility and the counterparty's credit risk, and checking the calculation on a sample basis.

Other Information

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

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

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

Responsibilities of Directors and Those Charged with Governance for the Consolidated Financial Statements

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

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

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

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

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

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements *(continued)*

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

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in the independent auditor's report is Lam Kam Chiu.

Deloitte Touche Tohmatsu
Certified Public Accountants

Hong Kong
16 March 2020

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2019

	Notes	**2019 RMB million**	2018 RMB million
Revenue	6	**70,183**	60,698
Cost of sales		**(58,918)**	(51,188)
Gross profit		**11,265**	9,510
Other income	8	**861**	949
Other gains and losses	9	**644**	(1,634)
Distribution and selling expenses		**(976)**	(790)
Administrative expenses		**(3,099)**	(2,673)
Share of results of associates		**326**	275
Share of results of joint ventures		**547**	601
Finance costs	10	**(727)**	(637)
Profit before tax	11	**8,841**	5,601
Income tax expense	13	**(1,980)**	(1,783)
Profit for the year		**6,861**	3,818
Other comprehensive income (expense)			
Items that will not be reclassified to profit or loss:			
Gain on revaluation of properties arising from the transfer to investment properties		**3**	6
Fair value loss on equity instruments at fair value through other comprehensive income ("FVTOCI")		**(1)**	(7)
		2	(1)
Item that have been reclassified or may be reclassified subsequently to profit or loss:			
Release of exchange reserve to profit or loss upon deregistration/disposal of subsidiaries		**3**	(40)
Other comprehensive income (expense) for the year		**5**	(41)
Total comprehensive income for the year		**6,866**	3,777
Profit for the year attributable to:			
Owners of the Company		**5,670**	2,818
Non-controlling interests		**1,191**	1,000
		6,861	3,818
Total comprehensive income for the year attributable to:			
Owners of the Company		**5,674**	2,778
Non-controlling interests		**1,192**	999
		6,866	3,777

	Notes	**RMB**	RMB
Earnings per share	15		
– Basic		**5.05**	2.56
– Diluted		**5.04**	2.56

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 31 December 2019

	Notes	2019 RMB million	2018 RMB million
Non-current Assets			
Property, plant and equipment	16	**37,955**	31,073
Right-of-use assets	17	**2,185**	–
Prepaid lease payments	18	**–**	1,401
Investment properties	19	**268**	265
Goodwill	20	**2,379**	2,248
Intangible assets	21	**4,175**	3,037
Interests in associates	22	**3,308**	3,049
Interests in joint ventures	23	**3,841**	3,620
Other receivables	24	**48**	145
Financial assets at fair value through profit or loss ("FVTPL")	25	**5,169**	4,845
Equity instruments at FVTOCI	26	**123**	112
Amounts due from associates	29	**345**	353
Amounts due from joint ventures	30	**12**	68
Deferred tax assets	32	**1,292**	1,159
Deposits paid for investments	33	**15**	190
Prepayment and deposits paid for acquisition of property, plant and equipment, land use rights and right of operation		**169**	171
Restricted bank deposits	35	**446**	639
		61,730	52,375
Current Assets			
Inventories	34	**1,169**	1,331
Trade and other receivables	24	**7,492**	8,560
Contract assets	28	**757**	612
Prepaid lease payments	18	**–**	39
Financial assets at FVTPL	25	**361**	735
Amounts due from associates	29	**575**	523
Amounts due from joint ventures	30	**1,058**	1,523
Amounts due from related companies	31	**164**	231
Restricted bank deposits	35	**566**	62
Cash and cash equivalents	35	**7,373**	7,923
		19,515	21,539

	Notes	2019 RMB million	2018 RMB million
Current Liabilities			
Trade and other payables	37	**7,635**	7,103
Contract liabilities	38	**12,613**	10,490
Deferred income	39	**33**	25
Amounts due to associates	29	**189**	351
Amounts due to joint ventures	30	**785**	1,693
Amounts due to related companies	31	**1,060**	793
Taxation payables		**962**	782
Lease liabilities	36	**100**	–
Bank and other loans – due within one year	41	**7,495**	8,621
Corporate bonds	42	**–**	2,497
Unsecured bonds	44	**–**	443
Financial liabilities at FVTPL	25	**416**	219
		31,288	33,017
Net Current Liabilities		**(11,773)**	(11,478)
Total Assets less Current Liabilities		**49,957**	40,897
Capital and Reserves			
Share capital	40	**116**	116
Reserves		**25,752**	21,269
Equity attributable to owners of the Company		**25,868**	21,385
Non-controlling interests		**5,152**	4,169
Total Equity		**31,020**	25,554
Non-current Liabilities			
Contract liabilities	38	**3,302**	3,240
Deferred income	39	**650**	520
Amounts due to joint ventures	30	**735**	970
Lease liabilities	36	**450**	–
Bank and other loans – due after one year	41	**2,848**	2,101
Corporate bonds	42	**2,094**	–
Senior notes	43	**2,539**	2,491
Unsecured bonds	44	**4,169**	4,096
Financial liabilities at FVTPL	25	**330**	924
Deferred tax liabilities	32	**1,820**	1,001
		18,937	15,343
		49,957	40,897

The consolidated financial statements on pages 67 to 176 were approved and authorised for issue by the Board of Directors on 16 March 2020 and are signed on its behalf by:

Wang Yusuo
DIRECTOR

Wang Dongzhi
DIRECTOR

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2019

	Equity attributable to owners of the Company												
	Share capital RMB million (Note 40)	Treasury stocks RMB million	Share premium RMB million	Special reserve RMB million (note a)	Revaluation reserve RMB million	Share options reserve RMB million	Exchange reserve RMB million	Surplus reserve fund RMB million (note b)	Designated safety fund RMB million (note c)	Retained earnings RMB million	Total RMB million	Non-controlling interests RMB million	Total equity RMB million
At 1 January 2018 (restated)	112	–	72	(92)	16	74	37	2,082	59	14,649	17,009	3,265	20,274
Profit for the year	–	–	–	–	–	–	–	–	–	2,818	2,818	1,000	3,818
Other comprehensive income for the year	–	–	–	–	–	–	(40)	–	–	–	(40)	(1)	(41)
Total comprehensive income for the year	–	–	–	–	–	–	(40)	–	–	2,818	2,778	999	3,777
Recognition of equity-settled share-based payment (Note 45)	–	–	–	–	–	19	–	–	–	–	19	–	19
Share repurchase (Note 40)	–	–	(78)	–	–	–	–	–	–	–	(78)	–	(78)
Issue of ordinary shares on exercise of share options (Notes 40 & 45)	–	–	48	–	–	(15)	–	–	–	–	33	–	33
Issue of ordinary shares on conversion of convertible bonds	–	–	79	–	–	–	–	–	–	–	79	–	79
Issue of ordinary shares on acquisition of subsidiaries (Note 47)	4	–	2,493	–	–	–	–	–	–	–	2,497	–	2,497
Acquisition of subsidiaries and businesses (Notes 47 & 48)	–	–	–	–	–	–	–	–	–	–	–	259	259
Disposal of subsidiaries (Note 49)	–	–	–	–	–	–	–	–	–	–	–	(51)	(51)
Disposal of equity instrument at FVTOCI	–	–	–	–	6	–	–	–	–	(6)	–	–	–
Capital contribution from non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	–	234	234
Dividends appropriation (Note 14)	–	–	–	–	–	–	–	–	–	(952)	(952)	–	(952)
Dividends paid to non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	–	(537)	(537)
Transfer to surplus reserve fund (note b)	–	–	–	–	–	–	–	332	–	(332)	–	–	–
Transfer to designated safety fund (note c)	–	–	–	–	–	–	–	–	1	(1)	–	–	–
At 31 December 2018 and 1 January 2019	116	–	2,614	(92)	22	78	(3)	2,414	60	16,176	21,385	4,169	25,554
Profit for the year	–	–	–	–	–	–	–	–	–	5,670	5,670	1,191	6,861
Other comprehensive income for the year	–	–	–	–	1	–	3	–	–	–	4	1	5
Total comprehensive income for the year	–	–	–	–	1	–	3	–	–	5,670	5,674	1,192	6,866
Recognition of equity-settled share-based payment (Note 45)	–	–	–	–	–	74	–	–	–	–	74	–	74
Issue of ordinary shares on exercise of share options (Notes 40 & 45)	–	–	76	–	–	(24)	–	–	–	–	52	–	52
Purchase of shares under Share Award Scheme	–	(151)	–	–	–	–	–	–	–	–	(151)	–	(151)
Acquisition of subsidiaries and businesses (Notes 47 & 48)	–	–	–	–	–	–	–	–	–	–	–	314	314
Disposal of subsidiaries (Note 49)	–	–	–	–	–	–	–	–	–	–	–	(2)	(2)
Acquisition of additional interests in subsidiaries	–	–	–	10	–	–	–	–	–	–	10	(110)	(100)
Capital contribution from non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	–	148	148
Dividends appropriation (Note 14)	–	–	–	–	–	–	–	–	–	(1,176)	(1,176)	–	(1,176)
Dividends paid to non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	–	(559)	(559)
Transfer to surplus reserve fund (note b)	–	–	–	–	–	–	–	234	–	(234)	–	–	–
Transfer from designated safety fund (note c)	–	–	–	–	–	–	–	–	(1)	1	–	–	–
At 31 December 2019	116	(151)	2,690	(82)	23	128	–	2,648	59	20,437	25,868	5,152	31,020

Notes:

a. The balance represents the difference between the fair values of consideration paid and the carrying values of net assets attributable to the additional interests of subsidiaries acquired or disposal of with no change in control.

b. In accordance with the People's Republic of China ("PRC") regulations, the surplus reserve fund retained by subsidiaries in the PRC is non-distributable.

c. Pursuant to relevant PRC regulation, the Group is required to transfer 1.5% on revenue generated from construction and installation, transportation of gas or other dangerous chemical into a designated fund. The fund will be used for installation and repair and maintenance of safety facilities. The movement during the year represents the difference between the amount provided based on the relevant PRC regulation and the amount utilised during the year.

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2019

	Notes	2019 RMB million	2018 RMB million
OPERATING ACTIVITIES			
Profit before tax		**8,841**	5,601
Adjustments for:			
Share of results of associates		**(326)**	(275)
Share of results of joint ventures		**(547)**	(601)
Exchange differences		**194**	635
Fair value loss on convertible bonds at FVTPL		**–**	249
Fair value (gain) loss on financial assets/liabilities at FVTPL		**(920)**	797
Bargain purchase gain on acquisition of businesses	47	**(15)**	–
Impairment losses on receivables, net		**44**	64
Loss on disposal of property, plant and equipment		**77**	47
Gain on disposal of prepaid lease payments		**–**	(13)
Gain on disposal of right-of-use assets		**(29)**	–
Loss on deregistration/disposal of subsidiaries	49	**2**	2
Gain on remeasurement of interest in joint ventures previously held		**(11)**	(111)
Gain on dilution of equity interests in joint ventures		**–**	(72)
Gain on disposal of joint ventures		**(3)**	(16)
Loss on disposal of associates		**16**	–
Gain on redemption of convertible bonds at FVTPL		**–**	(34)
Dividends income from financial assets at FVTPL		**(139)**	(352)
Dividends income from equity instruments at FVTOCI		**(7)**	(2)
Increase in fair value of investment properties		**(6)**	(9)
Share-based payment expenses		**74**	19
Depreciation of property, plant and equipment		**1,377**	1,144
Depreciation of right-of-use assets		**169**	–
Amortisation of intangible assets		**238**	142
Release of prepaid lease payments		**–**	43
Financial guarantee income		**–**	(5)
Interest income on bank deposits and loan receivables		**(200)**	(162)
Finance costs		**727**	637
		9,556	7,728
Movements in working capital:			
Decrease (increase) in inventories		**216**	(404)
Decrease (increase) in trade and other receivables		**1,631**	(1,724)
(Increase) decrease in contract assets		**(148)**	65
Increase in contract liabilities		**2,185**	1,877
Increase in amounts due from associates		**(128)**	(130)
Increase in amounts due from joint ventures		**(198)**	(110)
Decrease in amounts due from related companies		**55**	246
(Decrease) increase in trade and other payables		**(445)**	956
(Decrease) increase in amounts due to joint ventures		**(51)**	1,680
Increase in amounts due to associates		**68**	161
Increase in deferred income		**138**	207
Increase (decrease) in amounts due to related companies		**266**	(306)
Cash generated from operations		**13,145**	10,246
PRC enterprise income tax paid		**(1,455)**	(1,952)
Net cash generated from operating activities		**11,690**	8,294

	Notes	2019 RMB million	2018 RMB million
INVESTING ACTIVITIES			
Dividends received from joint ventures		**404**	463
Dividends received from associates		**103**	100
Dividends received from financial assets at FVTPL		**139**	352
Dividends received from equity instruments at FVTOCI		**7**	2
Settlement of financial assets/liabilities at FVTPL		**390**	(122)
Option premium (paid) received in relation to derivative contracts		**(19)**	106
Interest received		**200**	162
Purchases of property, plant and equipment		**(7,146)**	(5,918)
Acquisition of intangible assets		**(39)**	(73)
Increase in prepaid lease payments		**–**	(123)
Proceeds from disposal of property, plant and equipment		**234**	93
Proceeds from disposal of prepaid lease payments		**–**	39
Purchases of wealth management products		**(20,480)**	(22,118)
Redemptions of wealth management products		**20,530**	22,859
Addition of right-of-use assets		**(197)**	–
Deposits paid for investments		**(14)**	(182)
Deposits paid for prepaid lease payments		**–**	(92)
Deposits paid for acquisition of right-of use assets		**(18)**	–
Deposits paid for acquisition of property, plant and equipment		**(126)**	(46)
Net cash outflow on acquisition of subsidiaries and businesses	47&48	**(1,175)**	(488)
Net cash outflow on acquisition of an additional interest in a subsidiary		**(100)**	–
Net cash inflow on disposal of subsidiaries	49	**42**	43
Proceeds from disposal of joint ventures		**17**	79
Proceeds from disposal of associates		**26**	5
Proceed from capital released from a joint venture		**–**	61
Proceeds from disposal of right-of use assets		**119**	–
Purchases of financial assets at FVTPL		**–**	(527)
Purchases of equity instruments at FVTOCI		**(12)**	(10)
Investments in joint ventures		**(74)**	(53)
Investments in associates		**(109)**	(1,121)
Addition of restricted bank deposits		**(606)**	(213)
Release of restricted bank deposits		**295**	254
Amounts advanced to third parties		**(320)**	(153)
Amounts repaid by third parties		**311**	–
Amounts advanced to associates		**(114)**	(293)
Amounts repaid by associates		**195**	177
Amounts advanced to joint ventures		**(83)**	(696)
Amounts repaid by joint ventures		**812**	804
Amounts advanced to related companies		**(2)**	(7)
Amounts repaid by related companies		**14**	34
Net cash used in investing activities		**(6,796)**	(6,602)

	2019 RMB million	2018 RMB million
FINANCING ACTIVITIES		
Interest paid	**(806)**	(748)
Advanced from banks and other financial institutions by ENN Finance Company Limited ("ENN Finance")	**8,854**	11,660
Amounts repaid to banks and other financial institutions by ENN Finance	**(8,854)**	(11,660)
Repurchase of shares	**–**	(78)
Purchase of shares under Share Award Scheme	**(151)**	–
Net proceeds from ordinary shares issued on exercise of share options	**52**	33
Proceeds from issuance of corporate bonds	**2,093**	–
Proceeds used in redemption of convertible bonds at FVTPL	**–**	(3,771)
Capital contribution from non-controlling shareholders	**142**	234
Dividends paid to non-controlling shareholders	**(559)**	(537)
Dividends paid to shareholders	**(1,176)**	(952)
New bank loans raised	**9,900**	11,519
Repayment of bank loans	**(10,561)**	(3,667)
Repayment of corporate bonds	**(2,500)**	(3,000)
Repayment of unsecured bonds	**(459)**	–
Repayment of lease liabilities	**(101)**	–
Advanced from associates	**3**	173
Amounts repaid to associates	**(233)**	(265)
Advanced from joint ventures	**14**	552
Amounts repaid to joint ventures	**(1,106)**	(1,246)
Advanced from related companies	**31**	9
Amounts repaid to related companies	**(30)**	(30)
Net cash used in financing activities	**(5,447)**	(1,774)
Net decrease in cash and cash equivalents	**(553)**	(82)
Effect of foreign exchange rate changes	**3**	30
Cash and cash equivalents at the beginning of the year	**7,923**	7,975
Cash and cash equivalents at the end of the year	**7,373**	7,923

1. GENERAL

ENN Energy Holdings Limited (the "Company") is an exempted company incorporated in the Cayman Islands under the Companies Law and its shares are listed on the Main Board of The Stock Exchange of Hong Kong Limited (the "Stock Exchange"). The addresses of its registered office and principal place of business are disclosed in the section headed "Corporate Information" of the Company's Annual Report.

The consolidated financial statements of the Company and its subsidiaries (collectively referred to the "Group") are presented in Renminbi ("RMB"), which is the same as the functional currency of the Company.

The Company is an investment holding company. The activities of its principal subsidiaries are set out in Note 56.

2. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS

In preparing the consolidated financial statements, the directors of the Company (the "Directors") have given careful consideration of the Group's net current liabilities of approximately RMB11,773 million as at 31 December 2019. A wholly-owned subsidiary of the Company has been approved by China Securities Regulatory Commission on 10 December 2018 to issue corporate bonds amounting to RMB5,000 million and issued three tranches of three-year corporate bonds amounting to RMB2,100 million in 2019. As at 31 December 2019, the unutilised issuance quota of the corporate bonds is RMB2,900 million. The wholly-owned subsidiary was also approved by the National Development and Reform Commission on 19 January 2020 to issue green bonds amounting to RMB5,000 million. Except for the unutilised issuance quota of the corporate bonds and green bonds, the Group has unutilised credit facilities of approximately RMB13,448 million as at 31 December 2019, which are subject to renewal within twelve months from the end of the reporting period. The Directors are therefore satisfied that the Group will be able to meet in full its financial obligations as they fall due in the foreseeable future. Accordingly, the consolidated financial statements for the year ended 31 December 2019 have been prepared on a going concern basis.

3. APPLICATION OF NEW AND AMENDMENTS TO HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs")

New and Amendments to HKFRSs that are mandatorily effective for the current year

The Group has applied the following new and amendments to HKFRSs issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") for the first time in the current year:

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

Except as described below, the application of the new and amendments to HKFRSs in the current year has had no material impact on the Group's financial positions and performance for the current and prior years and/or on the disclosures set out in these consolidated financial statements.

HKFRS 16 Leases

The Group has applied HKFRS 16 for the first time in the current year. HKFRS 16 superseded HKAS 17 "Leases", and the related interpretations.

Definition of a lease

The Group has elected the practical expedient to apply HKFRS 16 to contracts that were previously identified as leases applying HKAS17 and HK(IFRIC)-Int 4 *Determining whether an Arrangement contains a Lease* and not apply this standard to contracts that were not previously identified as containing a lease. Therefore, the Group has not reassessed contracts which already existed prior to the date of initial application.

For contracts entered into or modified on or after 1 January 2019, the Group applies the definition of a lease in accordance with the requirements set out in HKFRS 16 in assessing whether a contract contains a lease.

As a lessee

The Group has applied HKFRS 16 using the modified retrospective approach with the cumulative effect recognised at the date of initial application, 1 January 2019. The comparative information has not been restated.

3. APPLICATION OF NEW AND AMENDMENTS TO HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and Amendments to HKFRSs that are mandatorily effective for the current year *(continued)*

HKFRS 16 Leases (continued)

As a lessee *(continued)*

As at 1 January 2019, the Group recognised additional lease liabilities and right-of-use assets at amounts equal to the related lease liabilities by applying HKFRS 16.C8(b)(ii) transition.

When applying the modified retrospective approach under HKFRS 16 at transition, the Group applied the following practical expedients to leases previously classified as operating leases under HKAS 17, on lease-by-lease basis, to the extent relevant to the respective lease contracts:

i. elected not to recognise right-of-use assets and lease liabilities for leases with lease term ends within 12 months of the date of initial application;

ii. excluded initial direct costs from measuring the right-of-use assets at the date of initial application;

iii. applied a single discount rate to a portfolio of leases with similar remaining terms for similar class of underlying assets in similar economic environment. Specifically, discount rate for certain leases of machinery and equipment in the PRC was determined on a portfolio basis; and

iv. used hindsight based on facts and circumstances as at date of initial application in determining the lease term for the Group's leases with extension and termination options.

When recognising the lease liabilities for leases previously classified as operating leases, the Group has applied incremental borrowing rates of the relevant group entities at the date of initial application. The weighted average incremental borrowing rates applied by the relevant group entities range from 5.03% to 5.22%.

	At 1 January 2019 RMB million
Operating lease commitments disclosed as at 31 December 2018	839
Lease liabilities discounted at relevant incremental borrowing rates	646
Less: Recognition exemption – short-term leases	(14)
Lease liabilities as at 1 January 2019	632
Analysed as:	
Current portion	96
Non-current portion	536

The carrying amount of right-of-use assets as at 1 January 2019 comprises the following:

	Note	**Right-of-use assets** RMB million
Right-of-use assets relating to operating leases recognised upon application of HKFRS 16		632
Reclassified from prepaid lease payments	(a)	1,440
		2,072
By class:		
Prepaid lease payments		1,440
Leasehold lands and buildings		580
Motor vehicles		48
Equipment		4

3. APPLICATION OF NEW AND AMENDMENTS TO HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and Amendments to HKFRSs that are mandatorily effective for the current year *(continued)*

HKFRS 16 Leases (continued)

As a lessee *(continued)*

Note:

(a) Upon initial application of HKFRS 16, the current and non-current portion of prepaid lease payments amounting to RMB39 million and RMB1,401 million respectively were reclassified to right-of-use assets.

As a lessor

In accordance with the transitional provisions in HKFRS 16, the Group is not required to make any adjustment on transition for leases in which the Group is a lessor but account for these leases in accordance with HKFRS 16 from the date of initial application and comparative information has not been restated.

Upon initial application of HKFRS 16, new lease contracts entered into but commence after the date of initial application relating to the same underlying assets under existing lease contracts are accounted for as if the existing leases are modified as at 1 January 2019. The application has had no impact on the consolidated statement of financial position at 1 January 2019. However, effective on 1 January 2019, lease payments relating to the revised lease term after modification are recognised as income on straight-line basis over the extended lease term.

Effective on 1 January 2019, the Group has applied HKFRS 15 Revenue from Contracts with Customers ("HKFRS 15") to allocate consideration in the contract to each lease and non-lease components. The change in allocation basis has had no material impact on the consolidated financial statements of the Group for the current year.

There is no impact of transition to HKFRS 16 on retained earnings at 1 January 2019.

The following adjustments were made to the amounts recognised in the consolidated statement of financial position at 1 January 2019. Line items that were not affected by the changes have not been included.

	Carrying amounts previously reported at 31 December 2018	**Adjustments**	**Carrying amounts under HKFRS 16 at 1 January 2019**
	RMB million	RMB million	RMB million
Non-current Assets			
Prepaid lease payments	1,401	(1,401)	–
Right-of-use assets	–	2,072	2,072
Current Assets			
Prepaid lease payments	39	(39)	–
Current Liabilities			
Lease liabilities	–	96	96
Non-current Liabilities			
Lease liabilities	–	536	536

For the purpose of reporting cash flows from operating activities under indirect method for the year ended 31 December 2019, movements in working capital have been computed based on opening consolidated statement of financial position as at 1 January 2019 as disclosed above.

3. APPLICATION OF NEW AND AMENDMENTS TO HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and amendments to HKFRSs in issue but not yet effective

The Group has not early applied the following new and amendments to HKFRSs that have been issued but are not yet effective:

HKFRS 17	Insurance Contracts[1]
Amendments to HKFRS 3	Definition of a Business[2]
Amendments to HKFRS 10 and HKAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture[3]
Amendments to HKAS 1 and HKAS 8	Definition of Material[4]
Amendments to HKFRS 9, HKAS 39 and HKFRS 7	Interest Rate Benchmark Reform[4]

1 Effective for annual periods beginning on or after 1 January 2021

2 Effective for business combinations and asset acquisitions for which the acquisition date is on or after the beginning of the first annual period beginning on or after 1 January 2020

3 Effective for annual periods beginning on or after a date to be determined

4 Effective for annual periods beginning on or after 1 January 2020

In addition to the above new and amendments to HKFRSs, a revised Conceptual Framework for Financial Reporting was issued in 2018. Its consequential amendments, the Amendments to References to the Conceptual Framework in HKFRS Standards, will be effective for annual periods beginning on or after 1 January 2020.

Except for the new and amendments to HKFRSs mentioned below, the management anticipates that the application of all other new and amendments to HKFRSs will have no material impact on the consolidated financial statements in the foreseeable future.

Amendments to HKFRS 3 Definition of a Business

The amendments:

- add an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business. The election on whether to apply the optional concentration test is available on transaction-by-transaction basis;
- clarify that to be considered a business, an acquired set of activities and assets must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs; and
- narrow the definitions of a business and of outputs by focusing on goods and services provided to customers and by removing the reference to an ability to reduce costs.

The amendments are applied prospectively to all business combinations and asset acquisitions for which the acquisition date is on or after the first annual reporting period beginning on or after 1 January 2020, with early application permitted. The application of the amendments is not expected to have significant impact on the financial performance of the Group but may affect the acquisitions to be accounted for by the Group in the coming future.

Amendments to HKAS 1 and HKAS 8 Definition of Material

The amendments provide refinements to the definition of material by including additional guidance and explanations in making materiality judgments. In particular, the amendments:

- include the concept of "obscuring" material information in which the effect is similar to omitting or misstating the information;
- replace threshold for materiality influencing users from "could influence" to "could reasonably be expected to influence"; and
- include the use of the phrase "primary users" rather than simply referring to "users" which was considered too broad when deciding what information to disclose in the financial statements.

The amendments also align the definition across all HKFRSs and will be mandatorily effective for the Group's annual period beginning on 1 January 2020. The application of the amendments is not expected to have significant impact on the financial position and performance of the Group but may affect the presentation and disclosures in the consolidated financial statements.

3. APPLICATION OF NEW AND AMENDMENTS TO HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and amendments to HKFRSs in issue but not yet effective *(continued)*

Conceptual Framework for Financial Reporting 2018 (the "New Framework") and the Amendments to References to the Conceptual Framework in HKFRS Standards

The New Framework:

- reintroduces the terms stewardship and prudence;
- introduces a new asset definition that focuses on rights and a new liability definition that is likely to be broader than the definition it replaces, but does not change the distinction between a liability and an equity instrument;
- discusses historical cost and current value measures, and provides additional guidance on how to select a measurement basis for a particular asset or liability;
- states that the primary measure of financial performance is profit or loss, and that only in exceptional circumstances other comprehensive income will be used and only for income or expenses that arise from a change in the current value of an asset or liability; and
- discusses uncertainty, derecognition, unit of account, the reporting entity and combined financial statements.

Consequential amendments have been made so that references in certain HKFRSs have been updated to the New Framework, whilst some HKFRSs are still referred to the previous versions of the framework. These amendments are effective for annual periods beginning on or after 1 January 2020, with earlier application permitted. Other than specific standards which still refer to the previous versions of the framework, the Group will rely on the New Framework on its effective date in determining the accounting policies especially for transactions, events or conditions that are not otherwise dealt with under the accounting standards.

4. SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements have been prepared in accordance with HKFRSs issued by the HKICPA. In addition, the consolidated financial statements include applicable disclosures required by the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules") and by the Hong Kong Companies Ordinance.

Basis of preparation

The consolidated financial statements have been prepared on the historical cost basis, except for certain properties and financial instruments, which are measured at fair values at the end of each reporting period, as explained in the accounting policies set out below.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of HKFRS 2 "Share-based Payment", leasing transactions that are accounted for in accordance with HKFRS 16 (since 1 January 2019) or HKAS 17 (before application of HKFRS 16), and measurements that have some similarities to fair value but are not fair value, such as net realisable value in HKAS 2 "Inventories" or value in use in HKAS 36 "Impairment of Assets".

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

For financial instruments and investment properties which are transacted at fair value and a valuation technique that unobservable inputs are to be used to measure fair value in subsequent periods, the valuation technique is calibrated so that at initial recognition the results of the valuation technique equals the transaction price.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Basis of preparation *(continued)*

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

The principal accounting policies are set out below.

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries. Control is achieved where the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary.

Profit or loss and each item of other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

Non-controlling interests in subsidiaries are presented separately from the Group's equity therein, which represent present ownership interests entitling their holders to a proportionate share of net assets of the relevant subsidiaries upon liquidation.

Changes in the Group's ownership interests in existing subsidiaries

Changes in the Group's interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's relevant components of equity and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries, including re-attribution of relevant reserves between the Group and the non-controlling interests according to the Group's and the non-controlling interests' proportionate interests.

Any difference between the amount by which the non-controlling interests are adjusted, and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Basis of consolidation *(continued)*

Changes in the Group's ownership interests in existing subsidiaries (continued)

When the Group loses control of a subsidiary, the assets and liabilities of that subsidiary and non-controlling interests (if any) are derecognised. A gain or loss is recognised in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities attributable to the owners of the Company. All amounts previously recognised in other comprehensive income in relation to that subsidiary are accounted for as if the Group had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable HKFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under HKFRS 9 or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

Business combinations

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognised in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value, except that:

(a) deferred tax assets or liabilities, and liabilities or assets related to employee benefit arrangements are recognised and measured in accordance with HKAS 12 "Income Taxes" and HKAS 19 "Employee Benefits" respectively;

(b) liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with HKFRS 2 "Share-based Payment" at the acquisition date;

(c) assets (or disposal groups) that are classified as held for sale in accordance with HKFRS 5 "Non-current Assets Held for Sale and Discontinued Operations" are measured in accordance with that standard; and

(d) lease liabilities are recognised and measured at the present value of the remaining lease payments (as defined in HKRFS 16) as if the acquired leases at the acquisition date, except for leases for which the lease term ends within 12 months of the acquisition date. Right-of-use assets are recognised and measured at the same amount as the relevant lease liabilities, adjusted to reflect favourable or unfavourable terms of the lease when compared with market terms.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net amount of the identifiable assets acquired and the liabilities assumed as at acquisition date. If, after assessment, the net of the acquisition date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the relevant subsidiary's net assets in the event of liquidation are initially measured at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets or at fair value.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date, and the resulting gain or loss, if any, is recognised in profit or loss or other comprehensive income, as appropriate. Amounts arising from interests in the acquiree prior to the acquisition date that have been recognised in other comprehensive income and measured under HKFRS 9 would be accounted for on the same basis as would be required if the Group had disposed directly of the previously held equity interest.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Business combinations *(continued)*

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted retrospectively during the measurement period (which cannot exceed one year from the acquisition date), and additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Acquisition of a subsidiary not constituting a business

When the Group acquires a group of assets and liabilities that do not constitute a business, the Group identifies and recognises the individual identifiable assets acquired and liabilities assumed by allocating the purchase price first to the financial assets and financial liabilities at the respective fair values, the remaining balance of the purchase price is then allocated to the other identifiable assets and liabilities on the basis of their relative fair values at the date of purchase. Such a transaction does not give rise to goodwill or bargain purchase gain.

Goodwill

Goodwill arising on an acquisition of a business is carried at cost less accumulated impairment losses, if any, and is presented separately in the consolidated statement of financial position.

For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units ("CGUs") (or groups of CGUs) that is expected to benefit from the synergies of the combination, which represent the lowest level at which the goodwill is monitored for internal management purposes.

A cash-generating unit (or group of CGUs) to which goodwill has been allocated are tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. For goodwill arising on acquisition in a reporting period, the CGU (or group of CGUs) to which goodwill has been allocated is tested for impairment before the end of that reporting period. If the recoverable amount of the CGU is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata basis based on the carrying amount of each asset in the unit (or group of CGUs). Any impairment loss for goodwill is recognised directly in profit or loss in the consolidated statement of profit or loss and other comprehensive income. An impairment loss recognised for goodwill is not reversed in subsequent periods.

On disposal of the relevant CGUs or any of the CGU within the group of CGUs, the attributable amount of goodwill is included in the determination of the amount of profit or loss on disposal. When the Group disposes of an operation within the CGU (or a CGU within a group of CGUs), the amount of goodwill disposed of is measured on the basis of the relative values of the operation (or the CGU) disposed of and the portion of the CGU (or the group of CGUs) retained.

The Group's policy for goodwill arising on the acquisition of an associate and joint venture is described below.

Investments in associates and joint ventures

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Investments in associates and joint ventures *(continued)*

The results and assets and liabilities of associates or joint ventures are incorporated in these consolidated financial statements using the equity method of accounting, except when the investment, or a portion thereof, is classified as held for sale, in which case it is or the portion so classified is accounted for in accordance with HKFRS 5. Any retained portion of an investment in an associate or a joint venture that has not been classified as held for sale shall be accounted for using the equity method. The financial statements of associates and joint ventures used for equity accounting purposes are prepared using uniform accounting policies as those of the Group for like transactions and events in similar circumstances. Under the equity method, an investment in an associate or a joint venture is initially recognised in the consolidated statement of financial position at cost and adjusted thereafter to recognise the Group's share of the profit or loss and other comprehensive income of the associate or joint venture. Changes in net assets of the associate or joint venture other than profit or loss and other comprehensive income are not accounted for unless such changes resulted in changes in ownership interest held by the Group. When the Group's share of losses of an associate or a joint venture exceeds the Group's interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate or joint venture), the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture.

An investment in an associate or a joint venture is accounted for using the equity method from the date on which the investee becomes an associate or a joint venture. On acquisition of the investment in an associate or a joint venture, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognised immediately in profit or loss in the period in which the investment is acquired.

The Group assesses whether there is an objective evidence that the interest in an associate or a joint venture may be impaired. When any objective evidence exists, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with HKAS 36 "Impairment of Assets" as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs of disposal) with its carrying amount. Any impairment loss recognised is not allocated to any assets, including goodwill that forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognised in accordance with HKAS 36 to the extent that the recoverable amount of the investment subsequently increases.

When the Group ceases to have significant influence over an associate or joint control over a joint venture, it is accounted for as a disposal of the entire interest in the investee with a resulting gain or loss being recognised in profit or loss. When the Group retains an interest in the former associate or joint venture and the retained interest is a financial asset within the scope of HKFRS 9, the Group measures the retained interest at fair value at that date and the fair value is regarded as its fair value on initial recognition. The difference between the carrying amount of the associate or joint venture and the fair value of any retained interest and any proceeds from disposing of the relevant interest in the associate or joint venture is included in the determination of the gain or loss on disposal of the associate or joint venture. In addition, the Group accounts for all amounts previously recognised in other comprehensive income in relation to that associate or joint venture on the same basis as would be required if that associate or joint venture had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognised in other comprehensive income by that associate or joint venture would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to profit or loss (as a reclassification adjustment) upon disposal/partial disposal of the relevant associate or joint venture.

The Group continues to use the equity method when an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate. There is no remeasurement to fair value upon such changes in ownership interests.

When a group entity transacts with an associate or a joint venture of the Group, profits or losses resulting from the transactions with the associate or joint venture are recognised in the Group's consolidated financial statements only to the extent of interests in the associate or joint venture that are not related to the Group.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Revenue from contracts with customers

The Group recognises revenue when (or as) a performance obligation is satisfied, i.e. when "control" of the goods or services underlying the particular performance obligation is transferred to the customer.

A performance obligation represents a good or service (or a bundle of goods or services) that is distinct or a series of distinct goods or services that are substantially the same.

Control is transferred over time and revenue is recognised over time by reference to the progress towards complete satisfaction of the relevant performance obligation if one of the following criteria is met:

- the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs;
- the Group's performance creates or enhances an asset that the customer controls as the Group performs; or
- the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

Otherwise, revenue is recognised at a point in time when the customer obtains control of the distinct good or service.

Performance obligations for contracts with customers

The Group recognises revenue from the following sources:

1) Retail gas sales

The Group sells natural gas to customers through pipelines, including both residential households and commercial and industrial customers. Revenue is recognised when the piped natural gas is transferred to and consumed by customers of which the volume of gas sold is measured by gas meters installed at customer sites.

The Group also operates vehicle gas refuelling stations to refuel vehicles with LNG and CNG. Revenue is recognised when the refuelling is completed at the refuelling stations, being the time when LNG or CNG is transferred to customers.

2) Sales of integrated energy

The Group supplies various energy products, such as gas, electricity, cooling, heating and steam. Revenue from sales of integrated energy is recognised when the energy is transferred to and consumed by the customers.

3) Construction and installation

The Group provides construction and installation service under construction contracts with its customers. Such contracts are entered into for customers to gain access to the Group's gas pipelines or supply of integrated energy. Revenue is recognised over time based on the completion status of respective construction. The construction period is typically less than one year. The management considers that this output method is an appropriate measure of the progress towards complete satisfaction of the performance obligation.

4) Wholesale of gas

The Group supplies LNG to wholesale customers. Revenue is recognised when control of LNG has transferred, being when the LNG has been bulk delivered to the customers' specific location.

5) Sales of gas appliances and material

The Group sells gas appliances such as cooking stoves, water boilers, range hoods and space heaters to residential customers. In addition, the Group also sells construction materials and other energy products to commercial and industrial customers. Revenue is recognised when control of goods has transferred, being at the point the customers purchase the goods.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Revenue from contracts with customers *(continued)*

Performance obligations for contracts with customers (continued)

A contract asset represents the Group's right to consideration in exchange for goods or services that the Group has transferred to a customer that is not yet unconditional. It is assessed for impairment in accordance with HKFRS 9. In contrast, a receivable represents the Group's unconditional right to consideration, i.e. only the passage of time is required before payment of that consideration is due.

A contract liability represents the Group's obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer.

A contract asset and a contract liability relating to the same contract are accounted for and presented on a net basis.

Contracts with multiple performance obligations (including allocation of transaction price)

For contracts that contain more than one performance obligation, the Group allocates the transaction price to each performance obligation on a relative stand-alone selling price basis.

The stand-alone selling price of the distinct good or service underlying each performance obligation is determined at contract inception. It represents the price at which the Group would sell a promised good or service separately to a customer. If a stand-alone selling price is not directly observable, the Group estimates it using appropriate techniques such that the transaction price ultimately allocated to any performance obligation reflects the amount of consideration to which the Group expects to be entitled in exchange for transferring the promised goods or services to the customer.

Over time revenue recognition: measurement of progress towards complete satisfaction of a performance obligation

The progress towards complete satisfaction of a performance obligation is measured based on output method, which is to recognise revenue on the basis of direct measurement of the value of the goods or services transferred to the customer to date relative to the remaining goods or services promised under the contract, that best depict the Group's performance in transferring control of goods or services.

Existence of significant financing component

In determining the transaction price, the Group adjusts the promised amount of consideration for the effects of the time value of money if the timing of payments agreed (either explicitly or implicitly) provides the customer or the Group with a significant benefit of financing the transfer of goods or services to the customer. In those circumstances, the contract contains a significant financing component. A significant financing component may exist regardless of whether the promise of financing is explicitly stated in the contract or implied by the payment terms agreed to by the parties to the contract.

For advance payments received from customers before the transfer of the associated goods or services in which the Group adjusts for the promised amount of considerations for a significant financing component, the Group applies a discount rate that would be reflected in a separate financing transaction between the Group and the customer at contract inception. The relevant interest expenses during the period between the advanced payments were received and the transfer of the associated goods and services are accounted for on the same basis as other borrowing costs.

Principal versus agent

When another party is involved in providing goods or services to a customer, the Group determines whether the nature of its promise is a performance obligation to provide the specified goods or services itself (i.e. the Group is a principal) or to arrange for those goods or services to be provided by the other party (i.e. the Group is an agent).

The Group is a principal if it controls the specified good or service before that good or service is transferred to a customer.

The Group is an agent if its performance obligation is to arrange for the provision of the specified good or service by another party. In this case, the Group does not control the specified good or service provided by another party before that good or service is transferred to the customer. When the Group acts as an agent, it recognises revenue in the amount of any fee or commission to which it expects to be entitled in exchange for arranging for the specified goods or services to be provided by the other party.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Lease

Definition of a lease (upon application of HKFRS 16 in accordance with transitions in Note 3)

A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

For contracts entered into or modified on or after the date of initial application, the Group assesses whether a contract is or contains a lease based on the definition under HKFRS 16 at inception or modification date. Such contract will not be reassessed unless the terms and conditions of the contract are subsequently changed.

The Group as a lessee (upon application of HKFRS 16 in accordance with transitions in Note 3)

Allocation of consideration to components of a contract

For a contract that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

The Group also applies practical expedient not to separate non-lease components from lease component, and instead account for the lease component and any associated non-lease components as a single lease component.

As a practical expedient, leases with similar characteristics are accounted for on a portfolio basis when the Group reasonably expects that the effects on the consolidated financial statements would not differ materially from individual leases within the portfolio.

Short-term leases

The Group applies the short-term lease recognition exemption to leases of various offices, warehouses, equipment and vehicles that have a lease term of 12 months or less from the commencement date and do not contain a purchase option. Lease payments on short-term leases are recognised as expense on a straight-line basis over the lease term.

Right-of-use assets

The cost of right-of-use asset includes:

- the amount of the initial measurement of the lease liability;
- any lease payments made at or before the commencement date, less any lease incentives received; and
- any initial direct costs incurred by the Group.

Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities.

Right-of-use assets in which the Group is reasonably certain to obtain ownership of the underlying leased assets at the end of the lease term is depreciated from commencement date to the end of the useful life. Otherwise, right-of-use assets are depreciated on a straight-line basis over the shorter of its estimated useful life and the lease term.

The Group presents right-of-use assets that do not meet the definition of investment property as a separate line item on the consolidated statement of financial position.

Refundable rental deposits

Refundable rental deposits paid are accounted for under HKFRS 9 “Financial Instruments” and initially measured at fair value. Adjustments to fair value at initial recognition are considered as additional lease payments and included in the cost of right-of-use assets.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Lease *(continued)*

The Group as a lessee (upon application of HKFRS 16 in accordance with transitions in Note 3) (continued)

Lease liabilities

At the commencement date of a lease, the Group recognises and measures the lease liability at the present value of lease payments that are unpaid at that date. In calculating the present value of lease payments, the Group uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable.

The lease payments include:

- fixed payments less any lease incentives receivable;
- variable lease payments that depend on an index or a rate; and
- amounts expected to be paid under residual value guarantees.

After the commencement date, lease liabilities are adjusted by interest accretion and lease payments.

The Group remeasures lease liabilities (and makes a corresponding adjustment to the related right-of-use assets) whenever:

- the lease term has changed or there is a change in the assessment of exercise of a purchase option, in which case the related lease liability is remeasured by discounting the revised lease payments using a revised discount rate at the date of reassessment.
- the lease payments change due to changes in market rental rates following a market rent review, in which cases the related lease liability is remeasured by discounting the revised lease payments using the initial discount rate.

The Group presents lease liabilities as a separate line item on the consolidated statement of financial position.

Lease modifications

The Group accounts for a lease modification as a separate lease if:

- the modification increases the scope of the lease by adding the right to use one or more underlying assets; and
- the consideration for the leases increases by an amount commensurate with the stand-alone price for the increase in scope and any appropriate adjustments to that stand-alone price to reflect the circumstances of the particular contract.

For a lease modification that is not accounted for as a separate lease, the Group remeasures the lease liability based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

The Group as a lessee (prior to 1 January 2019)

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Operating lease payments, including the cost of acquiring land held under operating leases, are recognised as an expense on a straight-line basis over the term of the relevant lease. Contingent rentals arising under operating leases are recognised as expenses in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognised as a liability. The aggregate benefit of incentives is recognised as a reduction of rental expense on a straight-line basis.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Lease *(continued)*

The Group as a lessor

Classification and measurement of leases

Lease for which the Group is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards incidental to ownership of an underlying asset to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

Amounts due from lessees under finance leases are recognised as receivables at commencement date at amounts equal to net investments in the leases, measured using the interest rate implicit in the respective lease. Initial direct costs (other than those incurred by manufacturer or dealer lessors) are included in the initial measurement of the net investments in the leases. Interest income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

Rental income from operating leases is recognised in profit or loss on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset, and such costs are recognised as an expense on a straight-line basis over the lease term except for investment properties measured under fair value model.

Allocation of consideration to components of a contract

When a contract includes both leases and non-lease components, the Group applies HKFRS 15 "Revenue from Contracts with Customers" to allocate consideration in a contract to lease and non-lease components. Non-lease components are separated from lease component on the basis of their relative stand-alone selling prices.

Refundable rental deposits

Refundable rental deposits received are accounted for under HKFRS 9 and initially measured at fair value. Adjustments to fair value at initial recognition are considered as additional lease payments from lessees.

Lease modification

The Group accounts for a modification to an operating lease as a new lease from the effective date of the modification, considering any prepaid or accrued lease payments relating to the original lease as part of the lease payments for the new lease.

Foreign currencies

In preparing the financial statements of each individual group entity, transactions in currencies other than the entity's functional currency (foreign currencies) are recognised at the rates of exchanges prevailing on the dates of the transactions. At the end of the reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing on the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items are recognised in profit or loss in the period in which they arise.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Foreign currencies *(continued)*

For the purposes of presenting consolidated financial statements, the assets and liabilities of the Group's foreign operations are translated into the presentation currency of the Group (i.e. RMB) using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during that period, in which case the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity under the heading of exchange reserve (attributed to non-controlling interests as appropriate). Such exchange differences are recognised in profit or loss in the period in which the foreign operation is disposed of.

On the disposal of a foreign operation (i.e. a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, or a partial disposal of an interest in a joint arrangement or an associate that includes a foreign operation of which the retained interest becomes a financial asset), all of the exchange differences accumulated in equity in respect of that operation attributable to the owners of the Company are reclassified to profit or loss.

Goodwill and fair value adjustments to identifiable assets acquired and liabilities assumed through acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the rate of exchange prevailing at the end of each reporting period. Exchange differences arising are recognised in other comprehensive income.

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in the profit or loss in the period in which they are incurred.

Government grants

Government grants are not recognised until there is a reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognised in profit or loss on a systematic basis over the periods in which the Group recognises as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognised as deferred income in the consolidated statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognised in profit or loss in the period in which they become receivable.

Retirement benefit scheme contribution

Payable to the Mandatory Provident Fund Scheme and the retirement funds scheme managed by local social security bureau in accordance with the government regulations of the PRC, are recognised as an expense when employees have rendered service entitling them to the contributions.

Short-term and other long-term employee benefit

Short-term employee benefits are recognised at the undiscounted amount of the benefits to be paid as and when employees rendered the service. All short-term employee benefits are recognised as expense unless another HKFRS requires or permits the inclusion of the benefit in the cost of an asset.

A liability is recognised for benefits accruing to employees in respect of wages and salaries, annual leave and sick leave after deducting any amount already paid.

Liabilities recognised in respect of other long-term employee benefits are measured at the present value of the estimated future cash outflows expected to be made by the Group in respect of services provided by employees up to the reporting date. Any changes in the liabilities' carrying amounts resulting from service cost, interest and remeasurements are recognised in profit or loss except to the extent that another HKFRS requires or permits their inclusions in the cost of an asset.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Share-based payment

Share options granted by the Company to employees (including directors) of the Group in an equity-settled share-based payment arrangement

Equity-settled share-based payments to employees and others providing similar services are measured at the fair value of the equity instruments at the grant date.

The fair value of the equity-settled share-based payments determined at the grant date without taking into consideration all non-market vesting conditions is expensed on a straight-line basis over the vesting period, based on the Group's estimate of equity instruments that will eventually vest, with a corresponding increase in equity (share options reserve). Vesting conditions, other than market condition, shall not be taken into account when estimating the fair value of the share options at the measurement date. Instead, vesting conditions, i.e. a specified service period with or without a performance target, shall be taken into account in estimating the number of equity instrument that will ultimately vest. At the end of each reporting period, the Group revises its estimate of the number of equity instruments expected to vest based on assessment of all relevant non-market vesting conditions. The impact of the revision of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to the share options reserve.

When share options are exercised, the amount previously recognised in share options reserve will be transferred to share capital and share premium. When the share options are forfeited after the vesting date or are still not exercised at the expiry date, the amount previously recognised in share options reserve will be transferred to retained earnings.

Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit before tax as reported in the consolidated statement of profit or loss and other comprehensive income because of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax base used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary difference to the extent that is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such deferred tax assets and liabilities are not recognised if the temporary difference arises from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit. In addition, deferred tax liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill.

Deferred tax liabilities are recognised for taxable temporary difference associated with investments in subsidiaries and interests in associates and joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of the reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amounts of its assets and liabilities.

For the purposes of measuring deferred tax for leasing transactions in which the Group recognises the right-of-use assets and the related lease liabilities, the Group first determines whether the tax deductions are attributable to the right-of-use assets or the lease liabilities.

For leasing transactions in which the tax deductions are attributable to the lease liabilities, the Group applies HKAS 12 "Income Taxes" requirements to right-of-use assets and lease liabilities separately. Temporary differences relating to right-of-use assets and lease liabilities are not recognised at initial recognition and over the lease terms due to application of the initial recognition exemption.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Taxation *(continued)*

For the purposes of measuring deferred tax for investment properties that are measured using the fair value model, the carrying amounts of such properties are presumed to be recovered entirely through sale, unless the presumption is rebutted. The presumption is rebutted when the investment property is depreciable and is held within a business model whose objective is to consume substantially all of the economic benefits embodied in the investment property over time, rather than through sale.

Current and deferred tax are recognised in profit or loss, except when it relates to items that are recognised in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognised in other comprehensive income or directly in equity respectively. Where current tax or deferred tax arises from initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

Property, plant and equipment

Property, plant and equipment are tangible assets included building and leasehold land (classified as finance lease) that are held for use in the production or supply of goods or services, or for administrative purposes (other than properties under construction as described below), are stated in the consolidated statement of financial position at cost or deemed cost for properties transferred from investment properties, less subsequent accumulated depreciation and accumulated impairment losses, if any.

Properties in the course of construction for production, supply or administrative purposes are carried at cost, less any recognised impairment loss. Costs include any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and, for qualifying assets, borrowing costs capitalised in accordance with the Group's accounting policy. Depreciation of these assets, on the same basis as other property assets, commences when the assets are ready for their intended use.

Ownership interests in leasehold land and building

When the Group makes payments for ownership interests of properties which includes both leasehold land and building elements, the entire consideration is allocated between the leasehold land and the building elements in proportion to the relative fair values at initial recognition.

To the extent the allocation of the relevant payments can be made reliably, interest in leasehold land that is accounted for as an operating lease is presented as "right-of-use assets" (upon application of HKFRS 16) or prepaid lease payments (before application of HKFRS 16) in the consolidated statement of financial position except for those that are classified and accounted for as investment properties under the fair value model. When the consideration cannot be allocated reliably between non-lease building element and undivided interest in the underlying leasehold land, the entire properties are classified as property, plant and equipment.

Depreciation is recognised so as to write off the costs or deemed cost of assets (other than properties under construction) less their residual values over their estimated useful lives, using the straight-line method. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

If a property becomes an investment property because its use has changed as evidenced by end of owner-occupation, any difference between the carrying amount and the fair value of that item (including the relevant leasehold land under HKRFS 16 or prepaid lease payments under HKAS 17) at the date of transfer is recognised in other comprehensive income and accumulated in revaluation reserve. On the subsequent sale or retirement of the property, the relevant revaluation reserve will be transferred directly to retained earnings.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in the profit or loss.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Investment properties

Investment properties are properties held to earn rentals and/or for capital appreciation.

Investment properties are measured initially at cost, including any directly attributable expenditure. Subsequent to initial recognition, investment properties are measured at their fair values, adjusted to exclude any prepaid or accrue operating lease income. Gains or losses arising from changes in the fair value of investment property are included in profit or loss for the period in which they arise.

An investment property is derecognised upon disposal or when the investment property is permanently withdrawn from use or no future economic benefits are expected from its disposals. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the profit or loss in the period in which the property is derecognised.

For a transfer from investment property to property, plant and equipment, the investment property is measured at the fair value at the date of transfer. The fair value of the investment property will be recognised as the deemed cost of the property for subsequent accounting in accordance with the accounting policy of property, plant and equipment as set out above.

Intangible assets

Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are carried at costs less accumulated amortisation and any accumulated impairment losses (see the accounting policy in respect of impairment losses on tangible and intangible assets below). Amortisation is recognised on a straight-line basis over their estimated useful lives. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Internally-generated intangible assets – research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred. An internally-generated intangible asset arising from development or from the development phase of an internal project is recognised if, and only if, all of the following have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognised for internally-generated intangible asset is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no internally generated intangible asset can be recognised, development expenditure is charged to profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible asset is measured at cost less accumulated amortisation and accumulated impairment losses (if any), on the same basis as intangible assets that are acquired separately.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Intangible assets *(continued)*

Intangible assets acquired in a business combination

Intangible assets that are acquired in a business combination are recognised separately from goodwill and are initially recognised at their fair value at the acquisition date (which is regarded as their cost).

Subsequent to initial recognition, intangible assets acquired in a business combination with finite useful lives are reported at costs less accumulated amortisation and any accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

Derecognition of intangible assets

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains and losses arising from derecognition of an intangible asset are measured at the difference between the net disposal proceeds and the carrying amount of the asset and are recognised in the profit or loss in the period when the asset is derecognised.

Impairment losses on property, plant and equipment, right-of-use assets and intangible assets other than goodwill (see the accounting policy in respect of goodwill above)

At the end of the reporting period, the Group reviews the carrying amounts of its property, plant and equipment, right-of-use assets and intangible assets with finite useful lives to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the relevant asset is estimated in order to determine the extent of the impairment loss, if any.

The recoverable amounts of property, plant and equipment, right-of-use assets and intangible assets are estimated individually. When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the CGU to which the asset belongs.

In addition, the Group assesses whether there is indication that corporate assets may be impaired. If such indication exists, corporate assets are also allocated to individual CGUs, when a reasonable and consistent basis of allocation can be identified, or otherwise they are allocated to the smallest group of CGUs for which a reasonable and consistent allocation basis can be identified.

Intangible assets not yet available for use are tested for impairment at least annually, and whenever there is an indication that they may be impaired.

Recoverable amount is the higher of fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or a CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or a CGU) is reduced to its recoverable amount. For corporate assets or portion of corporate assets which cannot be allocated on a reasonable and consistent basis to a CGU, the Group compares the carrying amount of a group of CGUs, including the carrying amounts of the corporate assets or portion of corporate assets allocated to that group of CGUs, with the recoverable amount of the group of CGUs. In allocating the impairment loss, the impairment loss is allocated first to reduce the carrying amount of any goodwill (if applicable) and then to the other assets on a pro-rata basis based on the carrying amount of each asset in the unit. The carrying amount of an asset is not reduced below the highest of its fair value less costs of disposal (if applicable), its value in use (if determinable) and zero. The amount of the impairment loss that would otherwise have been allocated to the asset is allocated pro-rata to the other assets of the unit. An impairment loss is recognised immediately in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or a CGU) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or a CGU) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Inventories

Inventories, including construction materials, gas appliances, natural gas, other energy inventories, spare parts and consumables and integrated energy appliances are stated at the lower of cost and net realisable value. Costs of inventories are determined using weighted average cost formula. Net realisable value represents the estimated selling price for inventories less all estimated costs to completion and the costs necessary to make the sale.

Financial instruments

Financial assets and financial liabilities are recognised when a group entity becomes a party to the contractual provisions of the instrument. All regular way purchases or sales of financial assets are recognised and derecognised on a trade day basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the market place.

Financial assets and financial liabilities are initially measured at fair value except for trade receivables arising from contracts with customers which are initially measured in accordance with HKFRS 15. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at FVTPL) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at FVTPL are recognised immediately in profit or loss.

The effective interest method is a method of calculating the amortised cost of a financial asset or financial liability and of allocating interest income and interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts and payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial asset or financial liability, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

Financial assets

Classification and subsequent measurement of financial assets

Financial assets that meet the following conditions are subsequently measured at amortised cost:

- the financial asset is held within a business model whose objective is to collect contractual cash flows; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets that meet the following conditions are subsequently measured at FVTOCI:

- the financial asset is held within a business model whose objective is achieved by both selling and collecting contractual cash flows; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

All other financial assets are subsequently measured at FVTPL, except that at the date of initial recognition of a financial asset the Group may irrevocably elect to present subsequent changes in fair value of an equity investment in other comprehensive income if that equity investment is neither held for trading nor contingent consideration recognised by an acquirer in a business combination to which HKFRS 3 “Business Combinations” applies.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Financial assets (continued)

Classification and subsequent measurement of financial assets *(continued)*

A financial asset is held for trading if:

- it has been acquired principally for the purpose of selling in the near term;
- on initial recognition it is a part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

In addition, the Group may irrevocably designate a financial asset that are required to be measured at the amortised cost or FVTOCI as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch.

(i) Amortised cost and interest income

Interest income is recognised using the effective interest method for financial assets measured subsequently at amortised cost. Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit-impaired (see below). For financial assets that have subsequently become credit-impaired, interest income is recognised by applying the effective interest rate to the amortised cost of the financial asset from the next reporting period. If the credit risk on the credit impaired financial instrument improves so that the financial asset is no longer credit-impaired, interest income is recognised by applying the effective interest rate to the gross carrying amount of the financial asset from the beginning of the reporting period following the determination that the asset is no longer credit-impaired.

(ii) Equity instruments designated as at FVTOCI

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognised in other comprehensive income and accumulated in the revaluation reserve; and are not subject to impairment assessment. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments, and will be transferred to retained earnings.

Dividends from these investments in equity instruments are recognised in profit or loss when the Group's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment. Dividends are included in the "other income" line item in profit or loss.

(iii) Financial assets at FVTPL

Financial assets that do not meet the criteria for being measured at amortised cost or FVTOCI or designated as FVTOCI are measured at FVTPL.

Financial assets at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognised in profit or loss. The net gain or loss recognised in profit or loss excludes any dividend or interest earned on the financial asset and is included in the "other gains and losses" line item.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Financial assets (continued)

Impairment of financial assets (and other items subject to impairment assessment under HKFRS 9)

The Group performs impairment assessment under expected credit loss ("ECL") model on financial assets (including trade receivables and part of other receivables, restricted bank deposits, bank balances, amounts due from associates/joint ventures/related companies) and other items (contract assets and financial guarantee contracts) which are subject to impairment under HKFRS 9. The amount of ECL is updated at each reporting date to reflect changes in credit risk since initial recognition.

Lifetime ECL represents the ECL that will result from all possible default events over the expected life of the relevant instrument. In contrast, 12-month ECL represents the portion of lifetime ECL that is expected to result from default events that are possible within 12 months after the reporting date. Assessment are done based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current conditions at the reporting date as well as the forecast of future conditions.

The Group always recognises lifetime ECL for trade receivables, contract assets and amounts due from associates/joint ventures/related companies arising from contracts with customers. The ECL on these assets are assessed individually for debtors with significant balances and collectively using a provision matrix with appropriate groupings for the remaining.

For all other financial assets at amortised cost, the Group measures the loss allowance equal to 12-month ECL, unless when there has been a significant increase in credit risk since initial recognition, the Group recognises lifetime ECL. The assessment of whether lifetime ECL should be recognised is based on significant increases in the likelihood or risk of a default occurring since initial recognition.

(i) Significant increase in credit risk

In assessing whether the credit risk has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. In making this assessment, the Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly:

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- significant deterioration in external market indicators of credit risk, e.g. a significant increase in the credit spread, the credit default swap prices for the debtor;
- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;
- an actual or expected significant deterioration in the operating results of the debtor; and
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Group presumes that the credit risk has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise.

Despite the foregoing, the Group assumes that the credit risk on a debt instrument has not increased significantly since initial recognition if the debt instrument is determined to have low credit risk at the reporting date. A debt instrument is determined to have low credit risk if i) it has a low risk of default, ii) the borrower has a strong capacity to meet its contractual cash flow obligations in the near term, and iii) adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations. The Group considers a debt instrument to have low credit risk when it has an external credit rating of "investment grade" as per globally understood definitions.

The Group regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Financial assets (continued)

Impairment of financial assets (and other items subject to impairment assessment under HKFRS 9) *(continued)*

(ii) Definition of default

For internal credit risk management, the Group considers an event of default occurs when information developed internally or obtained from external sources indicates that the debtor is unlikely to pay its creditors, including the Group, in full (without taking into account any collaterals held by the Group).

Default has been considered occurred when the instrument is more than 90 days past due unless the Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

(iii) Credit-impaired financial assets

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired includes observable data about the following events:

(a) significant financial difficulty of the issuer or the borrower;

(b) a breach of contract, such as a default or past due event;

(c) the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;

(d) it is becoming probable that the borrower will enter bankruptcy or other financial reorganisation; or

(e) the disappearance of an active market for that financial asset because of financial difficulties.

(iv) Write-off policy

The Group writes off a financial asset when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, for example, when the counterparty has been placed under liquidation or has entered into bankruptcy proceedings, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. A write-off constitutes a derecognition event. Any subsequent recoveries are recognised in profit or loss.

(v) Measurement and recognition of ECL

The measurement of ECL is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information. Estimation of ECL reflects an unbiased and probability-weighted amount that is determined with the respective risks of default occurring as the weights.

Generally, the ECL is the difference between all contractual cash flows that are due to the Group in accordance with the contract and the cash flows that the Group expects to receive, discounted at the effective interest rate determined at initial recognition.

Where ECL is measured on a collective basis or cater for cases where evidence at the individual instrument level may not yet be available, the financial instruments are grouped on the following basis:

- Nature of financial instruments (i.e. the Group's trade and other receivables, amounts due from associate/joint ventures/ related companies in trade nature are each assessed as a separate group. Loans to related parties are assessed for expected credit losses on an individual basis);
- Aging status;
- Nature, size and industry of debtors; and
- External credit ratings where available.

The grouping is regularly reviewed by management to ensure the constituents of each group continue to share similar credit risk characteristics.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Financial assets (continued)

Impairment of financial assets (and other items subject to impairment assessment under HKFRS 9) *(continued)*

(v) Measurement and recognition of ECL (continued)

For financial guarantee contracts, the loss allowances are recognised at the higher of the amount of the loss allowance determined in accordance with HKFRS 9; and the amount initially recognised less, where appropriate, cumulative amount of income recognised over the guarantee period.

The Group recognises an impairment gain or loss in profit or loss for all financial instruments by adjusting their carrying amount, with the exception of trade and other receivables, contract assets and amounts due from associate/joint ventures/related companies where the corresponding adjustment is recognised through a loss allowance account.

Financial liabilities and equity instruments

Debt and equity instruments issued by a group entity are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognised at the proceeds received, net of direct issue costs.

Repurchase of the Company's own equity instruments is recognised and deducted directly in equity. No gain or loss is recognised in profit or loss on the purchase, sale, issue or cancellation of the Company's own equity instruments.

Financial liabilities at amortised cost

Financial liabilities (including trade and other payables, amounts due to associates/joint ventures/related companies, bank and other loans, corporate bonds, senior notes and unsecured bonds) are subsequently measured at amortised cost, using the effective interest method.

Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument.

A financial guarantee contract issued by the Group is initially measured at its fair value and if not designated as at FVTPL, are subsequently measured at the higher of: (i) the amount of the loss allowance determined in accordance with HKFRS 9; and (ii) the amount initially recognised less, where appropriate, cumulative amortisation. Amount initially recognised is amortised over the duration of the guarantee using the straight-line method.

Derivative financial instruments

Derivatives are initially recognised at fair value at the date when derivative contracts are entered into and are subsequently remeasured to their fair value at the end of the reporting period. The resulting gain or loss is recognised in profit or loss immediately unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Derivative financial instruments (continued)

Generally, multiple embedded derivatives in a single instrument that are separated from the host contracts are treated as a single compound embedded derivative unless those derivatives relate to different risk exposures and are readily separable and independent of each other.

Embedded derivatives

Derivatives embedded in hybrid contracts that contain financial asset hosts within the scope of HKFRS 9 are not separated. The entire hybrid contract is classified and subsequently measured in its entirety as either amortised cost or fair value as appropriate.

Derivatives embedded in non-derivative host contracts that are not financial assets within the scope of HKFRS 9 are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL.

Derecognition

The Group derecognises a financial asset only when the rights to receive cash flows from the assets expire or, when it transfers the financial assets and substantially all the risks and rewards of ownership of the assets to another entity. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

On derecognition of a financial asset, the difference between the asset's carrying amount and the consideration received and receivable is recognised in profit or loss.

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

5. KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group's accounting policies, which are described in Note 4, the Directors are required to make estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and underlying assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the reporting period in which the estimate is revised if the revision affects only that reporting period, or in the reporting period of the revision and future reporting periods if the revision affects both current and future reporting periods.

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

5. KEY SOURCES OF ESTIMATION UNCERTAINTY *(continued)*

Recognition of intangible assets acquired in business acquisition

The Group accounts for acquisitions of businesses by using the acquisition method, and the consideration transferred for the business acquisition is allocated to the identifiable assets acquired and liabilities assumed based on their respective fair values as at acquisition date, including intangible assets. The Group usually determines the fair value of intangible assets using excess earning method, which requires a set of estimations and determination of key inputs, including the future cash flow, profit margins, revenue growth rates and discount rates. Any changes to these inputs may have significant impact on the fair value of intangible assets, and will consequently have further impact on the goodwill or the profit or loss in the case of a bargain purchase.

Estimated impairment of goodwill and intangible assets

Determining whether goodwill and intangible assets are impaired requires the estimation of the recoverable amount of the CGUs to which goodwill and intangible assets have been allocated which is the higher of the fair value less costs of disposal and its value in use. The value in use calculation requires the Group to estimate the future cash flows expected to arise from the CGU and a suitable discount rate in order to calculate the present value. Where the actual future cash flows are less than expected, or changes in facts and circumstances which results in downward revision of future cash, a material impairment loss may arise. As at 31 December 2019, the carrying amount of goodwill and intangible assets less accumulated amortisation is RMB2,379 million and RMB4,175 million (2018: RMB2,248 million and RMB3,037 million), respectively. Details of the calculation of the recoverable amount are set out in Notes 20 and 21.

Fair value measurement of financial instruments

Certain of the Group's financial instruments, including unlisted equity securities and derivative contracts amounting to RMB4,097 million as at 31 December 2019 are measured at fair values with fair values being determined based on complex valuation techniques or unobserved inputs. Judgement and estimation are required in establishing the relevant valuation techniques and the relevant inputs such as liquidity discount, estimates of future prices, market price volatility and credit risk. Changes in assumptions relating to these factors could affect the reported fair values of these instruments. Further disclosures are set out in Note 53.

Provision of ECL for trade receivables and contract assets

The Group uses provision matrix to calculate ECL for the trade receivables and contract assets. The provision rates are based on shared credit risk characteristic as groupings of various debtors that have similar loss patterns. The provision matrix is based on the debtors' historical default rates taking into consideration forward-looking information that is reasonable and supportable available without undue costs or effort. At each reporting date, the historical observed default rates are reassessed and changes in the forward-looking information are considered. In addition, trade receivables and contract assets with significant balances and credit impaired are assessed for ECL individually. The provision of ECL is sensitive to changes in estimates. The information about the ECL and the Group's trade receivables and contract assets are disclosed in Notes 53, 24 and 28 respectively.

Depreciation of property, plant and equipment

Property, plant and equipment are depreciated on a straight-line basis over their estimated useful lives, after taking into account the estimated residual value. The Group assesses annually the residual value and the useful life of the property, plant and equipment and if the expectation differs from the original estimates, such differences from the original estimates will impact the depreciation charges in the year in which the estimates change. As at 31 December 2019, the carrying amount of property, plant and equipment less accumulated depreciation and accumulated impairment losses is RMB37,955 million (2018: RMB31,073 million).

6. REVENUE

Revenue from contract with customers comprises the following:

	2019 RMB million	2018 RMB million
Sales of goods		
Retail gas sales business	**40,049**	34,272
Sales of integrated energy	**2,365**	875
Wholesale of gas	**18,465**	18,107
Valued added business	**1,643**	1,432
	62,522	54,686
Provision of services		
Construction and installation	**6,932**	5,882
Integrated energy	**384**	130
Valued added business	**345**	–
	7,661	6,012
	70,183	60,698

Disaggregation of revenue from contracts with customers

	2019			2018		
	Sales of goods RMB million	Construction services RMB million	Total RMB million	Sales of goods RMB million	Construction services RMB million	Total RMB million
Types of goods or services						
Retail gas sales business	**40,049**	**–**	**40,049**	34,272	–	34,272
Sales of integrated energy and services	**2,365**	**384**	**2,749**	875	130	1,005
Wholesale of gas	**18,465**	**–**	**18,465**	18,107	–	18,107
Construction and installation	**–**	**6,932**	**6,932**	–	5,882	5,882
Valued added business	**1,643**	**345**	**1,988**	1,432	–	1,432
Total	**62,522**	**7,661**	**70,183**	54,686	6,012	60,698

The performance obligations of the Group are part of contracts mainly with an original expected duration of one year or less. As permitted under HKFRS 15, the transaction price allocated to these unsatisfied contracts is not disclosed.

7. SEGMENT INFORMATION

Information reported to the chief operating decision maker, the chief executive officer of the Company (the "CEO"), for the purposes of resource allocation and performance assessment among segments focuses specifically on different type of goods and services.

During the year, the segment information presented to CEO was re-grouped. The "sales of piped gas" and "vehicle gas refuelling stations" were combined into "retail gas sales business", while the sales of gas appliances and material previously stated separately in "sales of gas appliances" and "sales of material" segments, are now combined with various new value added services including the provision of energy saving technology, home energy solutions, etc., into a new segment named "value added business". Accordingly, the Group's operating and reportable segment under HKFRS 8 "Operating Segments" are retail gas sales business, sales of integrated energy and services, wholesale of gas, construction and installation, and value added business. Segment profit reviewed by the CEO represents the gross profit earned by each segment. The Group re-presented the corresponding segment information for the year ended 31 December 2018. The accounting policies of the reportable segments are the same as the Group's accounting policies described in Note 4.

7. SEGMENT INFORMATION *(continued)*

Segment revenue and results

Segment profit represents the profit earned by each segment without allocation of central administrative costs, distribution and selling expenses, share of results of associates and joint ventures, other income, other gains and losses and finance costs. This is the measure reported to the CEO for the purposes of resource allocation and performance assessment.

Inter-segment sales are charged at prevailing market rates.

The following is an analysis of the Group's revenue and results by reportable segments which are also the operating segments for the year:

2019	**Retail gas sales business RMB million**	**Sales of integrated energy and services RMB million**	**Wholesale of gas RMB million**	**Construction and installation RMB million**	**Value added business RMB million**	**Total RMB million**
Segment revenue	**54,515**	**3,020**	**33,686**	**8,404**	**7,255**	**106,880**
Inter-segment sales	**(14,466)**	**(271)**	**(15,221)**	**(1,472)**	**(5,267)**	**(36,697)**
Revenue from external customers	**40,049**	**2,749**	**18,465**	**6,932**	**1,988**	**70,183**
Segment profit before depreciation and amortisation	**6,669**	**600**	**171**	**3,991**	**1,239**	**12,670**
Depreciation and amortisation	**(998)**	**(127)**	**(5)**	**(272)**	**(3)**	**(1,405)**
Segment profit	**5,671**	**473**	**166**	**3,719**	**1,236**	**11,265**

2018	Retail gas sales business RMB million	Sales of integrated energy and services RMB million	Wholesale of gas RMB million	Construction and installation RMB million	Value added business RMB million	Total RMB million
Segment revenue	44,924	1,114	26,147	7,376	4,886	84,447
Inter-segment sales	(10,652)	(109)	(8,040)	(1,494)	(3,454)	(23,749)
Revenue from external customers	34,272	1,005	18,107	5,882	1,432	60,698
Segment profit before depreciation and amortisation	5,962	196	233	3,659	550	10,600
Depreciation and amortisation	(827)	(53)	(5)	(203)	(2)	(1,090)
Segment profit	5,135	143	228	3,456	548	9,510

7. SEGMENT INFORMATION *(continued)*

Segment assets and liabilities

An analysis of the Group's total assets and liabilities by segments is as follows:

2019	**Retail gas sales business RMB million**	**Sales of integrated energy and services RMB million**	**Wholesale of gas RMB million**	**Construction and installation RMB million**	**Value added business RMB million**	**Total RMB million**
Assets:						
Segment assets	**32,091**	**5,808**	**1,785**	**7,767**	**2,213**	**49,664**
Interests in associates						**3,308**
Interests in joint ventures						**3,841**
Unallocated corporate assets						**24,432**
Consolidated total assets						**81,245**
Liabilities:						
Segment liabilities	**9,154**	**2,825**	**471**	**10,512**	**1,694**	**24,656**
Bank and other loans						**10,343**
Corporate bonds						**2,094**
Senior notes						**2,539**
Unsecured bonds						**4,169**
Unallocated corporate liabilities						**6,424**
Consolidated total liabilities						**50,225**

2018	Retail gas sales business RMB million	Sales of integrated energy and services RMB million	Wholesale of gas RMB million	Construction and installation RMB million	Value added business RMB million	Total RMB million
Assets:						
Segment assets	28,546	2,942	1,309	5,559	1,551	39,907
Interests in associates						3,049
Interests in joint ventures						3,620
Unallocated corporate assets						27,338
Consolidated total assets						73,914
Liabilities:						
Segment liabilities	7,006	2,328	413	9,610	1,322	20,679
Bank and other loans						10,722
Corporate bonds						2,497
Senior notes						2,491
Unsecured bonds						4,539
Unallocated corporate liabilities						7,432
Consolidated total liabilities						48,360

7. SEGMENT INFORMATION *(continued)*

Segment assets and liabilities *(continued)*

For the purposes of monitoring segment performances and allocating resources between segments:

- all assets are allocated to reportable segments other than unallocated corporate assets, mainly including unallocated property, plant and equipment, right-of-use assets, intangible assets, goodwill, investment properties, interests in associates, interests in joint ventures, deferred tax assets, certain other receivables, deposits, amounts due from associates, joint ventures and related companies, equity instruments at FVTOCI, financial assets at FVTPL, restricted bank deposits and cash and cash equivalents. Assets used jointly by segments are allocated on the basis of the revenues earned by individual segments; and
- all liabilities are allocated to reportable segments other than unallocated corporate liabilities, mainly including certain other payables, amounts due to associates, joint ventures and related companies, taxation payables, lease liabilities, bank and other loans, corporate bonds, senior notes, financial liabilities at FVTPL, unsecured bonds and deferred tax liabilities. Liabilities for which segments are jointly liable are allocated in proportion to segments assets.

For the purposes of presenting segment revenue, results, assets and liabilities, the Group allocates certain property, plant and equipment, intangible assets and right-of-use assets to certain segments with the related depreciation and release of prepaid lease payments to those segments.

Other segment information

Amounts included in the measurement of segment profit and segment assets:

	Retail gas sales business RMB million	Sales of integrated energy and services RMB million	Wholesale of gas RMB million	Construction and installation RMB million	Value added business RMB million	Total RMB million
2019						
Additions to non-current assets (note b)	**7,687**	**1,253**	**105**	**1,364**	**41**	**10,450**
Depreciation and amortisation	**998**	**127**	**5**	**272**	**3**	**1,405**
Impairment losses on trade receivables recognised (reversed) in profit or loss	**(7)**	**12**	**(2)**	**37**	**11**	**51**
Impairment losses on contract assets recognised in profit or loss	**–**	**1**	**–**	**2**	**–**	**3**
2018						
Additions to non-current assets (note b)	5,742	3,418	103	1,034	14	10,311
Depreciation and amortisation	827	53	5	203	2	1,090
Impairment losses on trade receivables recognised (reversed) in profit or loss	(19)	12	(14)	39	4	22
Impairment losses on contract assets recognised in profit or loss	–	3	–	22	–	25

7. SEGMENT INFORMATION *(continued)*

Other segment information *(continued)*

	Additions to non-current assets (note b)		Depreciation and amortisation	
	2019	2018	**2019**	2018
	RMB million	RMB million	**RMB million**	RMB million
Segment total	**10,450**	10,311	**1,405**	1,090
Adjustments (note a)	**91**	477	**379**	196
Total	**10,541**	10,788	**1,784**	1,286

Notes:

a. Adjustments represent amounts incurred for corporate headquarters and are not allocated to operating segments.

b. Non-current assets include property, plant and equipment, right-of-use assets, goodwill and intangible assets.

There is no single customer contribute more than 10% of the total revenue of the Group.

Substantially all of the Group's revenue and segment non-current assets are located in the PRC. For the year ended 31 December 2019, the revenues from the PRC and overseas were RMB70,021 million (2018: RMB60,568 million) and RMB162 million (2018: RMB130 million), respectively. As of 31 December 2019, the non-current assets located in the PRC were RMB46,681 million (2018: RMB37,746 million) and overseas were RMB13 million (2018: RMB13 million).

8. OTHER INCOME

	2019	2018
	RMB million	RMB million
Other income mainly includes:		
Incentive subsidies (note)	**213**	164
Dividends income from equity instruments at FVTOCI	**7**	2
Dividends income from financial assets at FVTPL	**139**	352
Interest income on bank deposits	**104**	65
Interest income on loan receivables from joint ventures and associates	**66**	82
Interest income on loan receivables from third parties	**30**	15
Rental income from investment properties	**10**	13
Rental income from equipment	**40**	48
Sale of proprietary technology	**1**	23

Note: The amount mainly represents refunds of various taxes as incentives and other incentives related to the Group's operation by the government authorities in various cities of the PRC.

9. OTHER GAINS AND LOSSES

	2019 RMB million	2018 RMB million
Net (loss) gain on disposal of:		
– Property, plant and equipment	**(77)**	(47)
– Right-of-use assets/prepaid lease payments	**29**	13
– Subsidiaries (Note 49)	**(2)**	(2)
– Joint ventures	**3**	16
– Associates	**(16)**	–
Bargain purchase gain on acquisition of businesses (Note 47)	**15**	–
Gain on dilution of equity interests in joint ventures	**–**	72
Gain on remeasurement of interests in joint ventures previously held (Notes 47 & 48)	**11**	111
Increase in fair value of investment properties (Note 19)	**6**	9
Gain on redemption of convertible bonds at FVTPL	**–**	34
Net gain (loss) of:		
– Convertible bonds at FVTPL	**–**	(249)
– Financial assets/liabilities at FVTPL (Note 25)	**920**	(797)
Impairment losses, net of reversal		
– Trade and other receivables	**(48)**	(29)
– Contract assets	**(3)**	(25)
– Amounts due from associates/joint ventures/related companies	**7**	(10)
Loss on foreign exchange, net (note)	**(198)**	(770)
Release of exchange reserve to profit or loss upon deregistration/disposal of subsidiaries	**(3)**	40
	644	(1,634)

Note: Included in the amount for the year ended 31 December 2019 is an exchange loss of approximately RMB192 million (2018: RMB707 million) arising from the translation of senior notes, unsecured bonds and bank loans denominated in United States dollars ("USD") and Hong Kong dollars ("HK$") to RMB.

10. FINANCE COSTS

	2019 RMB million	2018 RMB million
Interest on:		
Bank and other loans	**390**	269
Senior notes	**157**	151
Corporate bonds	**143**	188
Unsecured bonds	**153**	149
Lease liabilities	**34**	–
	877	757
Less: Amount capitalised under construction in progress (note)	**(150)**	(120)
	727	637

Note: Borrowing costs capitalised during both years were incurred on funds borrowed specifically and generally for the purpose of expenditure on qualifying assets. In respect of funds borrowed generally for the purpose of expenditure on qualifying assets, the amount of borrowing costs capitalised during the year was calculated by applying a capitalisation rate of 3.89% (2018: 3.82%) per annum.

11. PROFIT BEFORE TAX

	2019 RMB million	2018 RMB million
Profit before tax has been arrived at after (crediting) charging:		
Share-based payment expenses, including directors' emoluments (included in administrative expenses)	**74**	19
Other staff costs, including directors' emoluments	**3,199**	2,721
Less: Amount of other staff costs capitalised under construction in progress	**(165)**	(149)
	3,108	2,591
Depreciation and amortisation:		
Property, plant and equipment	**1,377**	1,144
Intangible assets	**238**	142
Right-of-use assets	**169**	–
Total depreciation and amortisation (note)	**1,784**	1,286
Release of prepaid lease payments	**–**	43
Auditors' remuneration	**21**	23
Minimum lease payments under operating leases in respect of premises, equipment and vehicles recognised in profit or loss	**35**	199

Note: The amount of total staff costs and depreciation and amortisation included in cost of sales, distribution and selling expenses and administrative expenses are as follows:

	2019 RMB million	2018 RMB million
Staff costs included in:		
Cost of sales	**1,003**	914
Distribution and selling expenses	**683**	582
Administrative expenses	**1,422**	1,095
	3,108	2,591
Depreciation and amortisation included in:		
Cost of sales	**1,405**	1,090
Distribution and selling expenses	**57**	11
Administrative expenses	**322**	185
	1,784	1,286

12. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS

a. Directors' emoluments

Emoluments paid and payable to the Directors for the year were as follows:

	2019					
Name of director	Fee RMB'000	Salaries and allowance RMB'000	Discretionary performance bonus RMB'000	Share-based payment RMB'000	Retirement benefit scheme contributions RMB'000	Total emoluments RMB'000
Executive Directors: (note a)						
Wang Yusuo	–	2,601	–	2,470	–	5,071
Cheung Yip Sang	–	1,600	–	1,923	16	3,539
Wang Zizheng	–	1,650	56	1,582	16	3,304
Han Jishen	–	3,150	4,419	1,843	143	9,555
Liu Min**	–	2,704	1,596	2,103	164	6,567
Wang Dongzhi	–	1,650	902	1,644	–	4,196
Zhang Yuying*****	–	217	–	82	9	308
Sub-total	–	13,572	6,973	11,647	348	32,540
Independent Non-executive Directors: (note b)						
Ma Zhixiang	400	–	–	300	–	700
Yuen Po Kwong	400	–	–	300	–	700
Law Yee Kwan, Quinn	400	–	–	300	–	700
Yien Yu Yu, Catherine	400	–	–	388	–	788
Sub-total	1,600	–	–	1,288	–	2,888
Total	1,600	13,572	6,973	12,935	348	35,428

12. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS *(continued)*

a. Directors' emoluments *(continued)*

Emoluments paid and payable to the Directors for prior year were as follows:

	2018					
Name of director	Fee RMB'000	Salaries and allowance RMB'000	Discretionary performance bonus RMB'000	Share-based payment RMB'000	Retirement benefit scheme contributions RMB'000	Total emoluments RMB'000
Executive Directors: (note a)						
Wang Yusuo	–	2,597	–	863	–	3,460
Cheung Yip Sang	–	1,598	2,400	792	15	4,805
Wang Zizheng*	133	972	900	89	14	2,108
Han Jishen	–	3,000	4,177	627	19	7,823
Liu Min**	–	2,800	2,639	–	126	5,565
Wang Dongzhi	–	1,499	180	569	–	2,248
Sean SJ Wang***	–	–	–	–	–	–
Sub-total	133	12,466	10,296	2,940	174	26,009
Independent Non-executive Directors: (note b)						
Ma Zhixiang	400	–	–	89	–	489
Yuen Po Kwong	400	–	–	89	–	489
Law Yee Kwan, Quinn	400	–	–	89	–	489
Yien Yu Yu, Catherine****	33	–	–	–	–	33
Sub-total	1,233	–	–	267	–	1,500
Total	1,366	12,466	10,296	3,207	174	27,509

* Mr. Wang Zizheng was redesignated as an executive director of the Company from non-executive director of the Company since 11 May 2018.

** Mr. Liu Min was appointed as executive director of the Company on 12 January 2018 and resigned on 4 December 2019.

*** Mr. Sean SJ Wang resigned on 12 January 2018.

**** Ms. Yien Yu Yu, Catherine was appointed as an independent non-executive director of the Company on 30 November 2018.

***** Mr. Zhang Yuying was appointed as executive director of the Company on 4 December 2019.

Notes:

a. The executive directors' emoluments shown above were mainly for their services in connection with the management of the affairs of the Company and the Group.

b. The independent non-executive directors' emoluments shown above were mainly for their services as directors of the Company.

The amounts disclosed above include directors' fees of RMB1,600,000 (2018: RMB1,233,000) paid or payable to independent non-executive directors. None of the Directors waived any emoluments during both years.

The discretionary performance bonus is determined by reference to the Group's performance during the year.

12. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS *(continued)*

b. Five highest paid individuals

The five highest paid employees of the Group during the year included three (2018: three) directors, details of whose remuneration are set out in Note 12(a) above. Details of the remuneration for the year of the remaining two (2018: two) highest paid employees who are neither a director nor chief executive of the Company are as follows:

	2019 RMB'000	2018 RMB'000
Salaries and allowance	4,160	3,502
Discretionary performance bonus	5,826	5,447
Share-based payment	1,413	507
Retirement benefits scheme	239	188
	11,638	9,644

The number of the highest paid employees included the Directors whose remuneration fell within the following bands is as follows:

	2019 Number of employees	2018 Number of employees
HK$5,500,001 to HK$6,000,000	1	3
HK$6,000,001 to HK$6,500,000	1	–
HK$6,500,001 to HK$7,000,000	–	1
HK$7,000,001 to HK$7,500,000	2	–
HK$9,000,001 to HK$9,500,000	–	1
HK$10,500,001 to HK$11,000,000	1	–
	5	5

13. INCOME TAX EXPENSE

	2019 RMB million	2018 RMB million
Current tax	1,565	1,586
Underprovision in prior years	1	9
Withholding tax	69	158
	1,635	1,753
Deferred tax (Note 32)	345	30
	1,980	1,783

The charge substantially represents PRC Enterprise Income Tax for both years.

Under the Law of the PRC on Enterprise Income Tax (the "EIT Law") and Implementation Regulation of the EIT Law, the tax rate applicable for PRC group entities is 25%.

Certain subsidiaries of the Company are qualified as "High and New Tech Enterprises", which are subject to PRC Enterprise Income Tax at the preferential rate of 15% of the estimated assessable profit as determined in accordance with relevant tax rules and regulations in the PRC. This preferential rate could be applied for three years and the subsidiaries are eligible to apply the tax concession again upon expiry of the three-year period.

Hong Kong Profits Tax is calculated at 16.5% of the estimated assessable profit.

13. INCOME TAX EXPENSE *(continued)*

Income tax charge for the year can be reconciled to the profit before tax per the consolidated statement of profit or loss and other comprehensive income as follows:

	2019 RMB million	2018 RMB million
Profit before tax	**8,841**	5,601
Tax at the PRC Enterprise Income Tax rate of 25% (2018: 25%)	**2,210**	1,400
Tax effects of share of results of associates	**(81)**	(69)
Tax effects of share of results of joint ventures	**(137)**	(150)
Tax effects of income not taxable for tax purpose	**(288)**	(207)
Tax effects of expenses not deductible for tax purpose	**211**	668
Tax effects of tax losses not recognised	**173**	154
Utilisation of tax losses previously not recognised	**(80)**	(50)
Tax effects of deductible temporary differences not recognised	**(16)**	(7)
Tax concession and exemption granted to certain PRC subsidiaries	**(121)**	(146)
Effect of different tax rates of subsidiaries operating in Hong Kong	**(10)**	–
Underprovision in respect of prior years	**1**	9
Withholding tax on undistributed profit of PRC entities	**118**	181
Income tax charge for the year	**1,980**	1,783

14. DIVIDENDS

	2019 RMB million	2018 RMB million
Final dividend paid in respect of previous financial year	**1,176**	952

Notes:

a. 2018 final dividend of HK$1.19 (equivalent to approximately RMB1.04) per ordinary share or approximately RMB1,176 million in aggregate was paid during the year ended 31 December 2019.

b. The proposed final dividend in respect of 2019 of HK$1.67 (equivalent to approximately RMB1.50) per ordinary share with total amount of HK$1,880 million (2018: HK$1,338 million) has been proposed by the Directors and is subject to approval by the shareholders in the forthcoming annual general meeting.

15. EARNINGS PER SHARE

The calculation of the basic and diluted earnings per share attributable to the owners of the Company is based on the following data:

Basic earnings per share

Basic earnings per share for the years ended 31 December 2019 and 2018 are calculated by dividing the profit attributable to the owners of the Company by the weighted average number of ordinary shares in issue during the year.

	2019	2018
Profit for the year attributable to the owners of the Company (RMB million)	5,670	2,818
Weighted average number of ordinary shares	1,122,968,436	1,099,639,474
Basic earnings per share (RMB)	5.05	2.56

Diluted earnings per share

Diluted earnings per share for the year ended 31 December 2019 and 2018 are calculated assuming all dilutive potential ordinary shares were converted.

	2019	2018
Earnings		
Earnings for the purpose of diluted earnings per share (RMB million)	5,670	2,818
Number of shares		
Weighted average number of ordinary shares for the purpose of basic earnings per share	1,122,968,436	1,099,639,474
Effect of dilutive potential ordinary shares:		
– share options	2,626,599	2,864,964
Weighted average number of ordinary shares for the purpose of diluted earnings per share	1,125,595,035	1,102,504,438
Diluted earnings per share (RMB)	5.04	2.56

16. PROPERTY, PLANT AND EQUIPMENT

	Leasehold land and buildings RMB million	Pipelines RMB million	Machinery and equipment RMB million	Motor vehicles RMB million	Office equipment RMB million	Properties under construction RMB million	Total RMB million
COST							
At 1 January 2018	3,650	20,338	2,028	417	1,480	3,461	31,374
Acquisition of subsidiaries (Notes 47 & 48)	198	325	197	2	16	170	908
Additions	126	302	229	88	185	5,156	6,086
Reclassification	243	3,467	344	–	25	(4,079)	–
Transfer to prepaid lease payments	–	–	–	–	–	(5)	(5)
Transfer to investment properties	(2)	–	–	–	–	–	(2)
Disposal of subsidiaries	(58)	(49)	(83)	(1)	(8)	(4)	(203)
Disposals	(24)	(97)	(73)	(62)	(19)	(8)	(283)
At 31 December 2018	4,133	24,286	2,642	444	1,679	4,691	37,875
Acquisition of subsidiaries (Notes 47 & 48)	221	586	90	6	2	321	1,226
Additions	16	351	290	64	304	6,325	7,350
Transfer from investment properties	7	–	–	–	–	–	7
Reclassification	355	4,364	385	2	51	(5,157)	–
Transfer to investment properties	(1)	–	–	–	–	–	(1)
Disposal of subsidiaries	(2)	(1)	(13)	–	–	–	(16)
Disposals	(85)	(178)	(133)	(44)	(76)	(5)	(521)
At 31 December 2019	4,644	29,408	3,261	472	1,960	6,175	45,920
DEPRECIATION AND IMPAIRMENT							
At 1 January 2018	544	3,692	609	254	785	–	5,884
Provided for the year	128	642	180	50	144	–	1,144
Disposal of subsidiaries	(15)	(10)	(47)	(5)	(6)	–	(83)
Eliminated on disposals	(4)	(36)	(35)	(54)	(14)	–	(143)
At 31 December 2018	653	4,288	707	245	909	–	6,802
Provided for the year	143	758	226	67	183	–	1,377
Disposal of subsidiaries	–	–	(4)	–	–	–	(4)
Eliminated on disposals	(13)	(35)	(59)	(39)	(64)	–	(210)
At 31 December 2019	783	5,011	870	273	1,028	–	7,965
CARRYING VALUES							
At 31 December 2019	3,861	24,397	2,391	199	932	6,175	37,955
At 31 December 2018	3,480	19,998	1,935	199	770	4,691	31,073

16. PROPERTY, PLANT AND EQUIPMENT *(continued)*

The above items of property, plant and equipment, other than properties under construction, are depreciated on a straight-line basis as follows:

Leasehold land and buildings	Over the shorter of 30 years or the term of the leases
Pipelines	Over the shorter of 30 years or the term of the leases
Machinery and equipment	10 years
Motor vehicles	6 years
Office equipment	6 years

At the end of the reporting period, except for certain land and buildings with the carrying value of RMB37 million (2018: RMB38 million) which are located in Hong Kong, the remaining land and buildings are located in the PRC.

At the end of the reporting period, the Group is in the process of applying for ownership certificates for its buildings in the PRC amounting to approximately RMB430 million (2018: RMB255 million).

17. RIGHT-OF-USE ASSETS

	Prepaid lease payments RMB million	Leasehold land and buildings RMB million	Motor vehicles RMB million	Equipment RMB million	Total RMB million
As at 1 January 2019	1,440	580	48	4	2,072
Additions	418	40	–	–	458
Disposals	(155)	(21)	–	–	(176)
Depreciation	(50)	(98)	(19)	(2)	(169)
As at 31 December 2019	1,653	501	29	2	2,185
Expense relating to short-term lease and other leases with lease terms ended within 12 months of the date of initial application of HKFRS 16					35
Variable lease payments not included in the measurement of lease liabilities					2
Total cash outflow for leases					172

The Group leases various offices, warehouses, equipment and vehicles for its operations. Lease contracts are entered into for fixed term of 1 month to 50 years, but may have extension and termination options. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. In determining the lease term and assessing the length of the non-cancellable period, the Group applies the definition of a contract and determines the period for which the contract is enforceable.

At the end of the reporting period, the Group is in the process of applying for the land use right certificates for the land in the PRC amounting to approximately RMB110 million (2018: RMB108 million). In the opinion of the Directors, the Group is not required to incur additional cost in obtaining the land use right certificates.

The Group entered into several short-term leases for various offices, warehouses, equipment and vehicles. As at 31 December 2019, the total outstanding lease commitments is RMB5 million.

18. PREPAID LEASE PAYMENTS

	2018 RMB million
The Group's prepaid lease payments comprise land in the PRC	1,440
Analysed for reporting purposes as:	
Current portion	39
Non-current portion	1,401

19. INVESTMENT PROPERTIES

	RMB million
FAIR VALUE	
At 1 January 2018	246
Exchange adjustment	2
Net increase in fair value recognised in profit or loss	9
Transfers from property, plant and equipment	8
At 31 December 2018	265
Net increase in fair value recognised in profit or loss	6
Transfers from property, plant and equipment	4
Transfers to property, plant and equipment	(7)
At 31 December 2019	268
Unrealised gains on property revaluation included in profit or loss (included in other gains and losses)	6

All of the Group's property interests held under operating leases to earn rentals or for capital appreciation purposes are measured using the fair value model and are classified and accounted for as investment properties. These investment properties include land and buildings which comprise operating leases in respect of properties situated in the PRC and Hong Kong.

The fair value of the Group's investment properties at 31 December 2019 and 2018 has been arrived at on the basis of a valuation carried out on those dates by Knight Frank Petty, a firm of independent valuers. The fair value was determined based on the income approach, where the market rentals of all lettable units of the properties are assessed and discounted at the market yield expected by investors for this type of properties. A significant increase in the market rent used would result in a significant increase in fair value, and vice versa. The Group's investment properties were classified in the Level 3 of fair value hierarchy as at 31 December 2019 and 2018.

In estimating the fair value of the properties, the highest and best use of the properties is their current use.

20. GOODWILL

	2019 RMB million	2018 RMB million
COST		
At 1 January	**2,299**	813
Acquisition of businesses (Note 47)	**131**	2,056
Disposal of subsidiaries	**–**	(570)
At 31 December	**2,430**	2,299
IMPAIRMENT		
At 1 January	**(51)**	(621)
Eliminated on disposal of subsidiaries	**–**	570
At 31 December	**(51)**	(51)
CARRYING VALUES		
At 31 December	**2,379**	2,248

Note: The Group tests goodwill annually for impairment, or more frequently if there are indications that goodwill might be impaired.

For the purposes of impairment testing, goodwill has been allocated to the following CGUs. At the end of the reporting period, the carrying value of goodwill mainly represents goodwill arising from the acquisition of:

	2019 RMB million	2018 RMB million
Integrated energy business located in the PRC	**1,998**	1,998
Sale of piped gas business located in Xuancheng, the PRC	**100**	–
Sale of piped gas business located in Binzhou, the PRC	**16**	–
Sale of piped gas business located in Linyi, the PRC	**15**	–
Other CGUs of sales of piped gas business, the PRC	**250**	250
	2,379	2,248

For the purpose of impairment testing, the recoverable amounts of the CGUs are determined from value in use calculations.

CGU of integrated energy business in the PRC

The Group prepares cash flow projection for integrated energy business in the PRC covering a 6-year period and the cash flow beyond the 6-year period was extrapolated using a steady growth rate of 3% (2018: 3%). For the 6-year period, the first three years are based on financial budgets approved by management and based on the pattern consistent with the track record of the respective entity taking into account the stage of the development of the respective integrated energy projects. The revenues beyond the 3-year period but within the sixth year were estimated using an annualised growth rates of 17.40% (2018: 21.55%). The growth rates are based on the management's estimation on the respective entity's projected market share and do not exceed average long-term growth rate for the relevant industry. The gross profit margin will be assumed the same beyond the 6-year period.

The Directors estimate discount rate using pre-tax rate that reflect current market assessment of the time value of money and the risks specific to the CGU and determined the discount rate to be 15.64% (2018: 15.57%).

20. GOODWILL *(continued)*

CGUs of sales of piped gas business in the PRC

For CGUs in the PRC, the Group prepares cash flow projection covering a 10-year period which is shorter than the contractual operating period. The cash flow projections for the first three years are based on financial budgets approved by management. The 3-year period financial budgets are prepared based on the pattern consistent with the track record of the respective entities taking into account the stage of the development of the respective gas projects. The cash flow beyond the 3-year period are extrapolated using an estimated growth pattern at an annualised growth rates of revenue for each CGU ranging from 3.00% to 5.50% (2018: 4.37% to 7.17%) and assuming the gross profit margin will be the same throughout the 10-year period.

The growth rates are based on the management's estimation on the respective entity's projected market share and will not exceed the growth rate of natural gas consumption projected by the relevant government authorities.

The Directors estimate discount rates using pre-tax rates that reflect current market assessments of the time value of money and the risks specific to the CGUs and determined the discount rate to be 13.32% to 14.38% (2018: 13.41% to 14.05%).

The Directors believe that any reasonably possible change in any of these assumptions would not cause the carrying amounts of goodwill to exceed the recoverable amount of respective CGUs.

21. INTANGIBLE ASSETS

	Right of operation RMB million	Customer base RMB million	Software RMB million	Technology RMB million	Development cost RMB million	Total RMB million
COST						
At 1 January 2018	2,165	50	26	–	85	2,326
Acquisition of subsidiaries (Notes 47 & 48)	875	1	–	549	–	1,425
Additions	33	–	6	–	34	73
Reclassification	–	–	94	–	(94)	–
At 31 December 2018	3,073	51	126	549	25	3,824
Acquisition of subsidiaries (Notes 47 & 48)	1,337	–	–	–	–	1,337
Additions	–	–	7	–	32	39
Reclassification	–	–	46	–	(46)	–
At 31 December 2019	4,410	51	179	549	11	5,200
AMORTISATION						
At 1 January 2018	621	20	4	–	–	645
Charge for the year	117	2	4	19	–	142
At 31 December 2018	738	22	8	19	–	787
Charge for the year	163	2	18	55	–	238
At 31 December 2019	901	24	26	74	–	1,025
CARRYING VALUES						
At 31 December 2019	3,509	27	153	475	11	4,175
At 31 December 2018	2,335	29	118	530	25	3,037

Right of operation and customer base are amortised on a straight-line method over the operation periods ranging from 10 to 50 years and from 15 to 50 years, respectively.

Software and technology is amortised on a straight-line method over the periods ranging from 1 to 10 years.

Development cost mainly represents expenditure incurred during the development phase of the Group's integrated energy service technologies and online LNG data platform.

22. INTERESTS IN ASSOCIATES

	2019 RMB million	2018 RMB million
Cost of investments	**2,287**	2,258
Share of post-acquisition profits, net of dividend received	**995**	765
	3,282	3,023
Deemed capital contribution		
Financial guarantee	**26**	26
	3,308	3,049

Included in the interests in associates is goodwill of approximately RMB47 million (2018: RMB47 million) arising on acquisitions of associates.

In the opinion of the Directors, none of the associates principally affected the results or net assets of the Group. To give details of the associates of the Group would, in the opinion of the Directors, result in particulars of excessive length.

The associates are accounted for using the equity method in these consolidated financial statements.

Aggregate information of associates:

	2019 RMB million	2018 RMB million
Profit and total comprehensive income for the year	**692**	826
Group's share of profit and total comprehensive income from associates for the year	**326**	275
Aggregate carrying amount of the Group's interests in these associates	**3,308**	3,049

23. INTERESTS IN JOINT VENTURES

	2019 RMB million	2018 RMB million
Cost of investments	**2,390**	2,302
Shares of post-acquisition profits, net of dividends received	**1,394**	1,261
	3,784	3,563
Deemed capital contribution		
Financial guarantee	**53**	53
Fair value adjustments on interest-free advances	**4**	4
	57	57
	3,841	3,620

Included in the interests in joint ventures is goodwill of approximately RMB192 million (2018: RMB192 million) arising on acquisitions of joint ventures.

The fair value adjustments on the interest-free advances are calculated by using an effective interest rate of 4.75% (2018: 4.75%) per annum and average terms of two years.

The joint ventures are accounted for using the equity method in these consolidated financial statements.

23. INTERESTS IN JOINT VENTURES *(continued)*

Details of the Group's principal joint ventures as at 31 December 2019 and 2018 are as follows:

Name of company	Form of business structure	Place of establishment/ operation	Proportion of nominal value of registered capital held by the Group 2019	2018	Principal activities
東莞新奧燃氣有限公司 ("Dongguan Xinao") (note)	Incorporated	The PRC	**55%**	55%	Investment in gas pipeline infrastructure and sales of piped gas and gas appliances
長沙新奧燃氣發展有限公司 ("Changsha Xinao") (note)	Incorporated	The PRC	**55%**	55%	Sales of piped gas

Note: The Group holds more than 50% of the registered capital of these entities but it does not have the power to appoint sufficient number of directors to control these entities and the joint venture partners in each entity control jointly on the operational and financial policies of each entity. Accordingly, these entities are classified as joint ventures of the Group.

The table above lists the joint ventures of the Group which, in the opinion of the Directors, principally affected the results or net assets of the Group. To give details of other joint ventures of the Group would, in the opinion of the Directors, result in particulars of excessive length.

Summarised financial information of material joint ventures

Summarised financial information in respect of the Group's material joint ventures is set out below. The summarised financial information below represents amounts shown in the joint venture's financial statements prepared in accordance with HKFRSs.

Dongguan Xinao

	2019 RMB million	2018 RMB million
Current assets	**798**	1,399
Non-current assets	**3,207**	2,859
Current liabilities	**2,406**	2,626
Non-current liabilities	**81**	1
Non-controlling interests	**166**	156

The above amounts of assets and liabilities include the following:

	2019 RMB million	2018 RMB million
Cash and cash equivalents	**299**	1,012
Current financial liabilities (excluding trade and other payables and provisions)	**627**	817

	2019 RMB million	2018 RMB million
Revenue	**4,182**	2,797
Profit and total comprehensive income for the year	**157**	207
Dividends received from Dongguan Xinao during the year	**154**	144

23. INTERESTS IN JOINT VENTURES *(continued)*

Summarised financial information of material joint ventures *(continued)*

Dongguan Xinao (continued)

The above profit for the year includes the following:

	2019 RMB million	2018 RMB million
Depreciation and amortisation	**138**	109
Interest income	**41**	25
Interest expense	**52**	36
Income tax expense	**74**	120

Reconciliation of the above summarised financial information to the carrying amount of the interest in Dongguan Xinao is recognised in the consolidated financial statements:

	2019 RMB million	2018 RMB million
Net assets of Dongguan Xinao	**1,352**	1,475
Proportion of the Group's ownership interest in Dongguan Xinao	**743**	811
Goodwill	**31**	31
Carrying amount of the Group's interest in Dongguan Xinao	**774**	842

Changsha Xinao

	2019 RMB million	2018 RMB million
Current assets	**1,801**	1,713
Non-current assets	**208**	215
Current liabilities	**1,306**	1,180

The above amounts of assets and liabilities include the following:

	2019 RMB million	2018 RMB million
Cash and cash equivalents	**84**	141
Current financial liabilities (excluding trade and other payables and provisions)	**669**	550

	2019 RMB million	2018 RMB million
Revenue	**3,026**	2,683
Profit and total comprehensive income for the year	**66**	130
Dividends received from Changsha Xinao during the year	**61**	97

The above profit for the year includes the following:

	2019 RMB million	2018 RMB million
Depreciation and amortisation	**9**	9
Interest income	**12**	39
Interest expense	**33**	30
Income tax expense	**18**	44

23. INTERESTS IN JOINT VENTURES *(continued)*

Summarised financial information of material joint ventures *(continued)*

Changsha Xinao (continued)

Reconciliation of the above summarised financial information to the carrying amount of the interest in Changsha Xinao is recognised in the consolidated financial statements:

	2019 RMB million	2018 RMB million
Net assets of Changsha Xinao	**703**	748
Proportion of the Group's ownership interest in Changsha Xinao	**387**	411
Capitalisation of financial guarantee	**4**	4
Carrying amount of the Group's interest in Changsha Xinao	**391**	415

Aggregate information of joint ventures that are not individually material:

	2019 RMB million	2018 RMB million
Profit and total comprehensive income for the year	**824**	803
Group's share of profit and total income from joint ventures for the year	**424**	416
Aggregate carrying amount of the Group's interests in these joint ventures	**2,676**	2,363

24. TRADE AND OTHER RECEIVABLES

	2019 RMB million	2018 RMB million
Trade receivables	**2,595**	2,868
Less: Allowance for credit losses	**(233)**	(182)
	2,362	2,686
Bills receivable (note a)	**1,413**	1,786
Other receivables	**472**	339
Loan receivables	**191**	379
	2,076	2,504
Less: Allowance for credit losses	**(18)**	(21)
	2,058	2,483
Deductible input value added tax and prepayment of other taxes and charges	**1,589**	1,363
Investment in wealth management products	**–**	13
Advances to suppliers and prepayments	**1,531**	2,160
Total trade and other receivables	**7,540**	8,705
Analysed for reporting purpose as:		
Current portion	**7,492**	8,560
Non-current portion (note b)	**48**	145

Notes:

a. The bills receivable were endorsed by PRC banks for guarantee payments and the default risk is considered to be minimal.

b. The balance that the management expects to recover after one year from the end of the reporting period is initially recognised by using an effective interest rate of 4.75% (2018: 4.75%) per annum.

24. TRADE AND OTHER RECEIVABLES *(continued)*

The following is an aged analysis of trade receivables, net of allowance for credit losses presented based on invoice date at the end of the reporting period:

	2019 RMB million	2018 RMB million
0 to 3 months	**1,792**	1,905
4 to 6 months	**76**	164
7 to 9 months	**192**	230
10 to 12 months	**55**	171
More than one year	**247**	216
	2,362	2,686

As at 31 December 2019, total bills receivable amounting to RMB1,413 million (2018:RMB1,786 million) are with a maturity period of less than one year.

As at 31 December 2019, included in the Group's trade receivables balance are debtors with aggregate carrying amount of RMB719 million (2018: RMB638 million) which are past due at the end of the reporting period and is not considered as in default because the Group has assessed the historical payment pattern of the debtors and the credit quality of these customers.

Details of impairment assessment of trade and other receivables for the year ended 31 December 2019 are set out in Note 53.

25. FINANCIAL ASSETS/LIABILITIES AT FVTPL

	2019 RMB million	2018 RMB million
Financial assets measured at FVTPL		
Foreign currency derivative contracts (note a)	**100**	6
Commodity derivative contracts (note b)	**573**	225
Listed equity interest in Shanghai Dazhong Public Utilities (Group) Co., Ltd ("Shanghai Utilities") (note c)	**287**	310
1.13% equity interest in Sinopec Marketing Co., Ltd (note d)	**4,170**	4,177
Unlisted wealth management products	**16**	49
Total return swap (note e)	**–**	463
Other unlisted equity securities (note f)	**384**	350
	5,530	5,580
Financial liabilities measured at FVTPL		
Foreign currency derivative contracts (note a)	**–**	(68)
Commodity derivative contracts (note b)	**(746)**	(1,075)
	(746)	(1,143)
Analysed for reporting purpose as:		
Assets		
Current portion	**361**	735
Non-current portion	**5,169**	4,845
Liabilities		
Current portion	**416**	219
Non-current portion	**330**	924

25. FINANCIAL ASSETS/LIABILITIES AT FVTPL *(continued)*

	2019 RMB million	2018 RMB million
Net unrealised gain (loss) included in other gains and losses		
Foreign currency derivative contracts (note a)	**161**	16
Commodity derivative contracts (note b)	**633**	(748)
Listed equity interest in Shanghai Utilities (note c)	**(22)**	(57)
1.13% equity interest in Sinopec Marketing Co., Ltd (note d)	**(7)**	114
Other unlisted equity securities (note f)	**34**	12
	799	(663)
Net realised gain (loss) included in other gains and losses		
Foreign currency derivative contracts (note a)	**(57)**	(137)
Commodity derivative contracts (note b)	**178**	3
	121	(134)
	920	(797)

Notes:

a. The Group is exposed to exchange risk mainly arising from various bonds and bank loans denominated in USD. To manage and mitigate the foreign exchange exposure, the Group entered into various foreign currency derivative contracts (the "Foreign Currency Derivatives") with certain financial institutions. As at 31 December 2019, the Foreign Currency Derivatives have a total notional amount of USD785 million (2018: USD700 million), of which the maturity dates match to the maturity dates of certain debts denominated in USD. The Foreign Currency Derivatives will enable the Group to buy USD at the predetermined RMB/USD exchange rates on the maturity dates. The Foreign Currency Derivatives are not designated as hedging instruments. Accordingly, they are classified and accounted for as financial instruments at FVTPL.

b. Since the year ended 31 December 2016, the Group has commitments to acquire LNG from certain suppliers. The delivery of LNG under such arrangements commenced in 2018 and last for 5 to 10 years. The Group is obliged to make "take-or-pay" payment to suppliers for the quantity contracted but not delivered.

   In the opinion of the Directors, such LNG purchase arrangements are entered into and continued to be held for the purpose of the receipt of a non-financial item in accordance with the Group's expected purchase, sale and usage.

   In order to manage and mitigate the commodity price risk, the Group entered into various commodity derivative contracts (the "Commodity Derivatives") against the underlying LNG contracts with certain financial institutions in order to stabilise its future LNG purchase costs. The Commodity Derivatives are not designated as hedging instruments. Accordingly, they are classified and accounted for as financial instruments at FVTPL.

c. The above listed investment represents 4.38% of the total issued share capital of Shanghai Utilities (1635.HK). During the year ended 31 December 2019, the Group received dividend income of approximately RMB7 million (2018: RMB8 million) from Shanghai Utilities.

d. The above investment represents 1.13% unlisted equity interest in Sinopec Marketing Co., Ltd ("Sinopec Marketing"). During the year ended 31 December 2019, the Group received dividend income of approximately RMB128 million (2018: RMB341 million) from Sinopec Marketing.

e. On 30 November 2018, the Company entered into a total return swap ("TRS") contract with a third party financial institution and the financial institution may purchase up to 7,000,000 of the Company's shares based on certain limitations of market conditions and its own service excellence. The Group provided HK$525 million to the financial institution in order to reduce the service charges by the financial institution. That TRS arrangement has been concluded by 30 June 2019. 2,415,100 of the Company's shares were purchased by the financial institution under the TRS contract and subsequently sold to the trust under the Share Award Scheme and were accounted for as treasury stocks amounted to RMB151 million as set out in Note 45. Remaining cash held by the financial institution was returned to the Group during the year.

f. The unlisted investments represent investments in unlisted equity securities issued by private entities incorporated in the PRC.

26. EQUITY INSTRUMENTS AT FVTOCI

	2019 RMB million	2018 RMB million
Unlisted equity securities	**123**	112

The above unlisted investments represent investments in unlisted equity securities issued by private entities incorporated in the PRC. The Directors have elected to designate these investments as equity instruments at FVTOCI as they believe that the Group will hold these investments for strategic cooperation purpose and has no intention to dispose of these investments in the foreseeable future.

27. TRANSFER OF FINANCIAL ASSETS

The following were the Group's financial assets as at 31 December 2019 and 2018 that were transferred to banks or suppliers by discounting, pledging to banks or endorsing those receivables on a full recourse basis. As the Group has not transferred the significant risks and rewards relating to these receivables, it continues to recognise the full carrying amount of the receivables and the corresponding liabilities included in secured borrowings or trade payables respectively. These financial assets are carried at amortised cost in the Group's consolidated statement of financial position.

At 31 December 2019

	Bills receivable discounted or pledged to banks RMB million	**Bills receivable endorsed to suppliers RMB million**	**Total RMB million**
Carrying amount of transferred assets	**49**	**675**	**724**
Carrying amount of associated liabilities	**(49)**	**(675)**	**(724)**
	–	**–**	**–**

At 31 December 2018

	Bills receivable discounted or pledged to banks RMB million	Bills receivable endorsed to suppliers RMB million	Total RMB million
Carrying amount of transferred assets	217	739	956
Carrying amount of associated liabilities	(217)	(739)	(956)
	–	–	–

28. CONTRACT ASSETS

	2019 RMB million	2018 RMB million
Gas pipeline installation	**643**	511
Integrated energy construction contracts	**114**	101
	757	612

As at 1 January 2018, contract assets amounted to RMB682 million.

29. AMOUNTS DUE FROM/TO ASSOCIATES

	2019 RMB million	2018 RMB million
Amounts due from associates:		
Current portion	575	523
Non-current portion	345	353
	920	876
Amounts due to associates:		
Current portion	189	351

Included in the amounts due from/to associates are trade receivables amounting to approximately RMB473 million (2018: RMB350 million) and trade payables amounting to approximately RMB84 million (2018: RMB17 million).

The aged analysis presented based on the invoice date, which approximated the respective revenue recognition date, at the end of the reporting period is as follows:

	2019 RMB million	2018 RMB million
Trade receivables due from associates		
0 to 3 months	189	228
4 to 6 months	94	40
7 to 9 months	88	12
10 to 12 months	26	24
More than one year	76	46
	473	350

There is no formal credit period applied and the balance was repayable on demand. Owing to the strategic relationship with the associates, the Directors are of the view that the balance is not considered as in default.

The amounts due from/to associates are unsecured, interest-free and repayable on demand except for the amounts due from/to associates detailed in the following table.

At 31 December 2019

	Maturity date	Effective interest rate per annum	2019 RMB million
Loan receivables from associates			
Unsecured	17/01/2020–22/05/2022	4.35%–8.00%	277
Loan payables to associates			
Savings in ENN Finance		0.35%	66
Unsecured	20/12/2020	4.35%	35
			101

29. AMOUNTS DUE FROM/TO ASSOCIATES *(continued)*

At 31 December 2018

	Maturity date	Effective interest rate per annum	2018 RMB million
Loan receivables from associates			
Secured	09/05/2022–30/11/2022	5.23%	29
Unsecured	06/03/2019–01/01/2021	4.35%–5.47%	441
			470
Loan payables to associates			
Unsecured	31/07/2019–24/12/2019	1.00%–4.35%	56
Savings in ENN Finance		0.35%	264
			320

Details of impairment assessment of amounts due from associates are set out in Note 53.

30. AMOUNTS DUE FROM/TO JOINT VENTURES

	2019 RMB million	2018 RMB million
Amounts due from joint ventures:		
Current portion	**1,058**	1,523
Non-current portion	**12**	68
	1,070	1,591
Amounts due to joint ventures:		
Current portion	**785**	1,693
Non-current portion	**735**	970
	1,520	2,663

Included in the amounts due from joint ventures was approximately RMB194 million (2018: RMB87 million) arising from the deposits placed for purchases of gas by the Group from the joint ventures. The balance approximates its fair value and is repayable on demand.

Included in the amounts due from/to joint ventures are trade receivables amounting to approximately RMB653 million (2018: RMB461 million) and trade payables amounting to approximately RMB585 million (2018: RMB635 million) and the aged analysis presented based on invoice date, which approximated the respective revenue recognition date, is as follows:

	2019 RMB million	2018 RMB million
Trade receivables due from joint ventures		
0 to 3 months	**430**	357
4 to 6 months	**35**	15
7 to 9 months	**60**	16
10 to 12 months	**31**	7
More than one year	**97**	66
	653	461

30. AMOUNTS DUE FROM/TO JOINT VENTURES *(continued)*

	2019 RMB million	2018 RMB million
Trade payables due to joint ventures		
0 to 3 months	**500**	584
4 to 6 months	**35**	20
7 to 9 months	**6**	9
10 to 12 months	**3**	4
More than one year	**41**	18
	585	635

There is no formal credit period applied and the balance was repayable on demand. Owing to the strategic relationship with the joint ventures, the Directors are of the view that the balance is not considered as in default.

The amounts due from/to joint ventures are unsecured, interest-free and repayable on demand except for the amounts due from/to joint ventures detailed in the following table:

At 31 December 2019

	Maturity date	Effective interest rate per annum	2019 RMB million
Loan receivables from joint ventures			
Unsecured	05/06/2020–26/09/2022	4.35%–6.00%	**179**
Loan payables to joint ventures			
Unsecured	07/01/2020–05/11/2020	0.35%–5.00%	**95**
Savings in ENN Finance		0.35%	**79**
			174

At 31 December 2018

	Maturity date	Effective interest rate per annum	2018 RMB million
Loan receivables from joint ventures			
Unsecured	10/01/2019–26/09/2022	3.90%–8.00%	716
Secured	27/04/2019–22/01/2020	6.00%	250
			966
Loan payables to joint ventures			
Unsecured	04/02/2019–31/12/2021	4.35%–5.10%	1,084
Savings in ENN Finance		0.35%	794
			1,878

Details of impairment assessment of amounts due from joint ventures are set out in Note 53.

31. AMOUNTS DUE FROM/TO RELATED COMPANIES

	2019 RMB million	2018 RMB million
Amounts due from companies controlled by a director and shareholder with significant influence	**164**	231
Amounts due to companies controlled by a director and shareholder with significant influence	**1,060**	793

The related companies are controlled by Mr. Wang Yusuo ("Mr. Wang") who is a director and shareholder of the Company with significant influence. The maximum amount outstanding during the year in respect of the amounts due from companies controlled by Mr. Wang is RMB646 million (2018: RMB418 million).

Included in the amounts due from/to related companies are trade receivables amounting to approximately RMB160 million (2018: RMB215 million) and trade payables amounting to approximately RMB1,026 million (2018: RMB760 million) and the aged analysis presented based on invoice date, which approximated the respective revenue recognition date, at the end of the reporting period is as follow:

	2019 RMB million	2018 RMB million
Trade receivables due from related companies		
0 to 3 months	**38**	132
4 to 6 months	**16**	16
7 to 9 months	**13**	13
10 to 12 months	**26**	19
More than one year	**67**	35
	160	215

	2019 RMB million	2018 RMB million
Trade payables due to related companies		
0 to 3 months	**674**	516
4 to 6 months	**137**	115
7 to 9 months	**62**	54
10 to 12 months	**36**	17
More than one year	**117**	58
	1,026	760

There is no formal credit period applied and the balance was repayable on demand. Owing to the strategic relationship with the related companies, the Directors are of the view that the balance is not considered as in default.

Details of impairment assessment of amounts due from related companies are set out in Note 53.

32. DEFERRED TAXATION

	2019 RMB million	2018 RMB million
Deferred tax assets	**1,292**	1,159
Deferred tax liabilities	**(1,820)**	(1,001)

The following are the major deferred tax assets and liabilities recognised and movements thereon during the years ended 31 December 2019 and 2018:

	Intangible assets RMB million	**Capitalisation of interest in property, plant and equipment** RMB million	**Undistributed retained profits of PRC entities from 1 January 2008** RMB million (note)	**Deferred income** RMB million	**Unrealised profits** RMB million	**Equipment for one time deduction from 1 January 2018** RMB million	**Others** RMB million	**Total** RMB million
At 1 January 2018	252	158	111	(857)	(176)	–	(1)	(513)
Acquisition of businesses (Note 47)	325	–	–	–	–	–	–	325
(Credit) charge to profit or loss	(25)	24	22	(159)	(69)	252	(15)	30
At 31 December 2018	552	182	133	(1,016)	(245)	252	(16)	(158)
Acquisition of businesses (Note 47)	341	–	–	–	–	–	–	341
(Credit) charge to profit or loss	(45)	30	49	(54)	(100)	475	(10)	345
At 31 December 2019	848	212	182	(1,070)	(345)	727	(26)	528

Note: The amount represents deferred taxation in respect of the temporary differences attributable to the undistributed retained profits earned after 1 January 2008 by the group entities registered in the PRC. The amount has been provided based on the amount of undistributed retained profit of certain PRC entities from 1 January 2008 attributable to non-PRC parent entities at a withholding tax rate of 10% or 5% as the Directors consider the amount will be probably reversed in the foreseeable future upon distribution of profit by the respective group entities.

Deferred taxation of approximately RMB809 million (2018: RMB 662 million) has not been provided for in the consolidated financial statements in respect of temporary differences attributable to undistributed retained profit of certain PRC subsidiaries as the Group is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

32. DEFERRED TAXATION *(continued)*

As at 31 December 2019, the Group has unused tax losses of approximately RMB1,651 million (2018: RMB1,252 million) available for offset against future profits. No deferred tax asset has been recognised in respect of the unused tax losses due to the uncertainty of future profit streams. The unrecognised tax losses will be expired in the following years ending 31 December:

	2019 **RMB million**	2018 RMB million
2019	**–**	125
2020	**120**	144
2021	**158**	200
2022	**147**	167
2023	**534**	616
2024	**692**	–
	1,651	1,252

As at 31 December 2019, the Group has other deductible temporary differences of approximately RMB496 million (2018: RMB562 million), which are mainly arising from impairment of trade and other receivables and unrealised profits within the Group. No deferred tax asset has been recognised in relation to such other deductible temporary differences as it is not probable that taxable profit will be available for offsetting against which the deductible temporary differences can be utilised.

33. DEPOSITS PAID FOR INVESTMENTS

The balance as at 31 December 2019 of RMB15 million (2018: RMB190 million) represented the deposits paid for the acquisitions of unlisted equity investment in the PRC which have not been completed at the end of the reporting period.

34. INVENTORIES

	2019 **RMB million**	2018 RMB million
Construction materials	**648**	583
Gas appliances	**218**	197
Natural gas	**214**	403
Other energy inventories	**30**	26
Spare parts and consumables	**4**	2
Integrated energy appliances	**55**	120
	1,169	1,331

The cost of inventories recognised as an expense during the year was approximately RMB54,976 million (2018: RMB41,818 million).

35. CASH AND CASH EQUIVALENTS/RESTRICTED BANK DEPOSITS

	2019 RMB million	2018 RMB million
Cash and cash equivalents	**7,373**	7,923
Restricted bank deposits		
Current portion	**566**	62
Non-current portion	**446**	639
	1,012	701
Bank deposits secured for:		
Letter of credit	**45**	13
Right of operation	**30**	19
Mandatory reserves in the People's Bank of China ("PBOC")	**384**	539
Energy supplies	**83**	56
Bills payable	**370**	74
Structured deposit	**100**	–
	1,012	701

Cash and cash equivalents include bank balances with original maturities less than three months carrying interest at market rates which range from 0.3% to 3.71% (2018: 0.3% to 3.75%) per annum as at 31 December 2019. The bank balances denominated in RMB are deposited with banks in the PRC.

At the end of the reporting period, the cash and cash equivalents denominated in foreign currencies other than the functional currency of respective group entities is RMB152 million (2018: RMB586 million), of which approximately RMB129 million (2018: RMB578 million) and approximately RMB23 million (2018: RMB7 million) are denominated in USD and HK$ respectively.

As at 31 December 2019, the restricted bank deposits carry fixed interest rate ranging from 0.3% to 3.71% (2018: from 0.3% to 3.75%) per annum. Except for the amount of mandatory reserves in the PBOC, other restricted bank deposits will be released upon the settlement of bank loans, the expiry of purchase contracts or right of operation. The mandatory reserves in the PBOC classified as non-current assets are deposits placed by ENN Finance and the reserves amount is subject to change with respect to the savings accepted by ENN Finance and the PBOC reserve rate is adjusted from time to time.

36. LEASE LIABILITIES

	2019 RMB million
Lease liabilities payables:	
Within one year	**100**
More than one year, but not more than two years	**80**
More than two years, but not more than five years	**143**
More than five years	**227**
	550
Less: Amounts due within one year shown under current liabilities	**(100)**
Amounts shown under non-current liabilities	**450**

37. TRADE AND OTHER PAYABLES

	2019 RMB million	2018 RMB million
Trade payables	**5,698**	5,095
Accrued charges and other payables	**1,937**	2,008
	7,635	7,103

The following is an aged analysis of trade payables presented based on the invoice date at the end of the reporting period.

	2019 RMB million	2018 RMB million
0 to 3 months	**3,559**	3,253
4 to 6 months	**1,135**	930
7 to 9 months	**238**	121
10 to 12 months	**161**	86
More than one year	**605**	705
	5,698	5,095

The average credit period on purchases of goods is 30 to 90 days.

38. CONTRACT LIABILITIES

	2019 RMB million	2018 RMB million
Deposit for gas charges and other sales (note a)	**6,597**	6,192
Deposit for construction and installation contracts (note b)	**5,721**	4,019
Deferred income (note c)	**3,597**	3,519
	15,915	13,730
Analysed for reporting purpose as:		
Current	**12,613**	10,490
Non-current	**3,302**	3,240
	15,915	13,730

As at 1 January 2018, contract liabilities amounted to RMB11,798 million.

Contract liabilities are classified as current and non-current based on the Group's earliest obligation to transfer goods or services to the customers.

The amount recognised in the current year relates to carried-forward contract liabilities were RMB8,910 million (2018: RMB7,701 million).

Notes:

a. The Group requires the customers to deposit gas charges into magnetic cards which connected to the gas meters. When the customers consume the natural gas, corresponding value of deposits will be recognised as revenue in line with the volume of gas consumed at pre-determined unit price. The deposit would be typically consumed within one year.

b. For construction and installation contracts, the Group normally receives a deposit before construction work commences. The Group continues to recognise revenue over time and apply output method in estimating the performance obligations satisfied throughout the construction and the installation period.

c. The deferred income represents connection fees and subsidies received from certain customers for the construction of main gas pipelines and related to maintaining the ongoing deliverability to supply gas at the discretion of the customers. The period to supply gas would be consistent with the operating period as stated in the right of operation.

39. DEFERRED INCOME

	Government grants RMB million	Subsidies received from customers RMB million (note a)	Connection fee received from customers RMB million (note b)	Total RMB million
GROSS				
At 1 January 2018	358	86	3,775	4,219
Reclassified to contract liabilities	–	(86)	(3,775)	(3,861)
Acquisition of subsidiaries	5	–	–	5
Additions	231	–	–	231
At 31 December 2018	594	–	–	594
Additions	164	–	–	164
At 31 December 2019	758	–	–	758
RECOGNITION				
At 1 January 2018	25	24	742	791
Reclassified to contract liabilities	–	(24)	(742)	(766)
Release to profit or loss	24	–	–	24
At 31 December 2018	49	–	–	49
Release to profit or loss	26	–	–	26
At 31 December 2019	75	–	–	75
CARRYING VALUES				
At 31 December 2019	683	–	–	683
At 31 December 2018	545	–	–	545

	2019 RMB million	2018 RMB million
Analysed for reporting purposes as:		
Current liabilities	**33**	25
Non-current liabilities	**650**	520
	683	545

Notes:

a. The balance represented the subsidies received from the customers to subsidise the construction cost of the main gas pipelines to the gas provision site and the gas storage. These customers do not restrict the Group to use the assets constructed for the use of other customers but the Group are committed to provide the gas to these customers for a period from 1 to 40 years. Accordingly, the Group has deferred the subsidies received and released to the profit or loss upon the completion of the assets over the shorter of the committed gas supply period and the useful lives of the related assets, which was reclassified to contract liabilities upon the initial application of HKFRS 15 as set out in Note 38.

b. Since 2009, the local governments in certain provinces in the PRC have issued relevant notice to the Group's subsidiaries governing the subsidiaries that an amount of the connection fee received by the Group's subsidiaries from its customers are for the construction cost of their main gas pipelines. The management considers that the arrangement indicates that the subsidiaries are required to maintain the ongoing deliverability to supply gas at the discretion of the customers. As the agreement under such arrangement does not specify a period for provision of the ongoing access to a supply of gas, fees received are deferred and released to the profit or loss over the estimated useful lives of the assets used to provide the ongoing service, which was reclassified to contract liabilities upon the initial application of HKFRS 15 as set out in Note 38.

40. SHARE CAPITAL

	2019 Number of shares	2018 Number of shares	2019 HK$ million	2018 HK$ million
Shares of HK$0.10 each				
Authorised:				
At beginning and end of the year	**3,000,000,000**	3,000,000,000	**300**	300
Issued and fully paid:				
At beginning of the year	**1,124,002,858**	1,082,844,897	**112**	108
Issue of shares on exercise of share options (note a)	**1,474,250**	1,025,500	**–**	–
Share repurchase (note b)	**–**	(1,419,400)	**–**	–
Issue of shares on acquisition of subsidiaries (Note 47)	**–**	39,926,534	**–**	4
Issue of shares on conversion of convertible bonds (note c)	**–**	1,625,327	**–**	–
At end of the year	**1,125,477,108**	1,124,002,858	**112**	112

	2019 RMB million	2018 RMB million
Presented in consolidated financial statements as:		
At beginning of the year	**116**	112
Share repurchase (note b)	**–**	–
Acquisition of subsidiaries	**–**	4
At end of the year	**116**	116

Notes:

a. During the year ended 31 December 2019, 1,474,250 shares (2018: 1,025,500 shares) were issued at the exercise price of HK$40.34 (2018: HK$40.34) per ordinary share in relation to the exercise of outstanding share options. These shares rank pari passu with the then existing shares in all respects as set one in Note 45.

b. On 4 October 2018, 5 October 2018, 8 October 2018, 11 October 2018, 12 October 2018 and 15 October 2018, the Company repurchased 200,000, 300,000, 274,500, 172,500, 272,400 and 200,000 of its own ordinary shares through the Stock Exchange. The highest price was HK$65.00 and the lowest price was HK$60.80. The aggregate consideration paid was approximately HK$89 million (equivalent to approximately RMB78 million). The above ordinary shares were cancelled on 16 November 2018.

   Save as disclosed above, none of the Company's subsidiaries purchased, sold or redeemed any of the Company's listed securities up to 31 December 2019.

c. On 15 February 2018, the Company issued 1,625,327 ordinary shares at a price of HK$47.73 per ordinary share to satisfy the conversion rights attached to the convertible bonds.

41. BANK AND OTHER LOANS

	2019 RMB million	2018 RMB million
Bank loans		
Secured	**187**	656
Unsecured	**10,015**	9,970
	10,202	10,626
Other loans		
Secured	**36**	–
Unsecured	**105**	96
	141	96
	10,343	10,722
The bank and other loans are repayable:		
On demand or within one year	**7,495**	8,621
More than one year, but not exceeding two years	**2,131**	189
More than two years, but not exceeding five years	**242**	1,574
More than five years	**475**	338
	10,343	10,722
Less: Amounts due within one year shown under current liabilities	**(7,495)**	(8,621)
Amounts shown under non-current liabilities	**2,848**	2,101

As at 31 December 2019, all the bank and other loans are denominated in the functional currency of respective group entities except for approximately RMB4,994 million (2018: RMB5,319 million) and approximately RMB1,380 million (2018: RMB478 million) which is denominated in USD and HK$ respectively.

The secured bank and other loans are secured by property, plant and equipment, rights to receive fee income of certain subsidiaries and joint ventures as set out in Note 52 and guarantees provided by related parties as set out in Note 55.

41. BANK AND OTHER LOANS *(continued)*

Details of the terms of the Group's borrowings are set out below:

At 31 December 2019

	Maturity date	Effective interest rate per annum	Carrying amount RMB million
Fixed-rate borrowings			
Unsecured RMB bank loans	15/01/2020–25/12/2020	3.92%–7.50%	2,755
Unsecured RMB other loans	12/06/2020–31/12/2020	3.79%–4.35%	105
Secured RMB bank loan	31/07/2022	4.75%	100
Secured RMB other loan	31/12/2020	4.35%	36
Unsecured HK$ bank loans	06/01/2020–08/05/2020	2.43%–3.05%	1,380
Unsecured USD bank loans	06/01/2020–29/03/2020	2.32%–3.57%	2,901
Total fixed-rate borrowings			7,277
Floating-rate borrowings			
Secured RMB bank loans at PBOC base rate	30/03/2020–01/05/2027	4.56%–7.35%	87
Unsecured RMB bank loans at PBOC base rate	30/01/2020–07/11/2032	4.35%–5.39%	886
Unsecured USD bank loan at London Interbank Offered Rate ("LIBOR")	30/11/2021	2.99%–3.26%	2,093
Total floating-rate borrowings			3,066
Total borrowings			10,343

41. BANK AND OTHER LOANS *(continued)*

At 31 December 2018

	Maturity date	Effective interest rate per annum	Carrying amount RMB million
Fixed-rate borrowings			
Unsecured RMB bank loans	10/01/2019–29/12/2019	3.30%–5.00%	1,799
Unsecured RMB other loan	12/06/2019	3.79%	96
Secured RMB bank loans	05/03/2019–25/05/2020	4.28%–7.50%	524
Unsecured HK$ bank loan	06/07/2019	2.83%	478
Unsecured USD bank loans	03/01/2019–30/06/2019	3.00%–4.31%	3,878
Total fixed-rate borrowings			6,775
Floating-rate borrowings			
Secured RMB bank loans at PBOC base rate	30/03/2020–23/11/2023	4.56%–4.90%	132
Unsecured RMB bank loans at PBOC base rate	10/01/2019–07/11/2032	4.45%–5.88%	2,374
Unsecured USD bank loan at LIBOR	30/11/2021	3.74%	1,441
Total floating-rate borrowings			3,947
Total borrowings			10,722

42. CORPORATE BONDS

a. Corporate bonds issued in 2016 (the "2016 Corporate Bonds")

On 30 November 2016, a subsidiary of the Company, Xinao (China) Gas Investment Company Limited ("Xinao (China)") issued the 2016 Corporate Bonds of RMB2,500 million. The amount was unsecured and carried a fixed interest rate of 3.55% per annum and was repaid on 2 December 2019.

b. Corporate bonds issued in 2019 (the "2019 Corporate Bonds")

Details of the terms of the three tranches' 2019 Corporate Bonds issued by Xinao (China) are set out below:

Date of Issuance	**22 January 2019**	**8 March 2019**	**11 November 2019**
Principal amount	**RMB500 million**	**RMB1,000 million**	**RMB600 million**
Interest rate	**4.19%**	**4.20%**	**3.98%**
Maturity date	**22 January 2022**	**8 March 2022**	**12 November 2022**
Net proceeds after deducting issuance costs	**RMB498 million**	**RMB996 million**	**RMB599 million**
Date of listing on the Shanghai Stock Exchange	**20 February 2019**	**29 March 2019**	**22 November 2019**
Effective interest rate after the adjustment for transaction costs	**4.36%**	**4.36%**	**4.04%**

42. CORPORATE BONDS *(continued)*

b. Corporate bonds issued in 2019 (the "2019 Corporate Bonds") *(continued)*

The 2019 Corporate Bonds recognised in the consolidated statement of financial position are calculated cumulatively as follows:

	2019 RMB million
Nominal value of 2019 Corporate Bonds	**2,100**
Issue costs	**(7)**
Fair value at date of issuance	**2,093**
Cumulative effective interest recognised	**58**
Cumulative interest paid/payable	**(57)**
Carrying amount at 31 December	**2,094**

43. SENIOR NOTES

On 13 May 2011, the Company issued 6% senior notes with an aggregated nominal value of USD750 million (equivalent to approximately RMB4,863 million) (the "2021 Senior Notes") at face value. The net proceeds, after deducting the issuance costs, amounted to USD735 million (equivalent to approximately RMB4,765 million). The 2021 Senior Notes will be matured on 13 May 2021. The 2021 Senior Notes are listed on the Singapore Exchange Securities Trading Limited (the "SGX-ST") and dealt in over-the-counter market though a financial institution as the principal agent.

According to the terms and conditions of the 2021 Senior Notes, at any time or from time to time prior to the maturity date, the Company may at its option to redeem the notes at a redemption price equaled to 100% of the principal amount thereof plus applicable premium and accrued and unpaid interest to such redemption date. The applicable premiums are the greater of (1) 1.0% of the principal amount and (2) the excess of (A) the present value at such redemption date of 100% of the principal amount, plus all required remaining scheduled interest payments due on the 2021 Senior Notes through the maturity date (but excluding accrued and unpaid interest to redemption date), computed using a discount rate equaled to the United States treasury rate plus 25 basis points, over (B) the principal amount on redemption date.

The fair value of the early redemption right is insignificant at initial recognition and at the end of the reporting periods. The effective interest rate is approximately 6.28% per annum after the adjustment for transaction costs.

The 2021 Senior Notes recognised in the consolidated statement of financial position are calculated cumulatively as follows:

	2019 RMB million	2018 RMB million
Nominal value of 2021 Senior Notes	**4,863**	4,863
Issue costs	**(98)**	(98)
Fair value at date of issuance	**4,765**	4,765
Repurchased (note)	**(2,603)**	(2,603)
Cumulative effective interest recognised	**2,083**	1,926
Cumulative interest paid/payable	**(2,023)**	(1,872)
Exchange loss	**317**	275
Carrying amount at 31 December	**2,539**	2,491

Note: In September 2015 and December 2016, the Company repurchased in aggregate of principal amount of USD35,000,000 and USD349,457,000 (equivalent to approximately RMB222 million and RMB2,410 million) in the open market. The principal amount of USD366 million was outstanding as at 31 December 2019 and 2018.

44. UNSECURED BONDS

On 23 October 2014, the Company issued 3.25% unsecured bonds with an aggregate nominal value of USD400 million (equivalent to approximately RMB2,460 million) (the "2019 Unsecured Bonds"). The net proceeds after discounting and deducting the issuance costs amounted to USD395 million (equivalent to approximately RMB2,429 million). The remaining balance of the 2019 Unsecured Bonds was fully repaid on 23 October 2019.

On 24 July 2017, the Company issued 3.25% unsecured bonds with an aggregate nominal value of USD600 million (equivalent to approximately RMB4,066 million) (the "2022 Unsecured Bonds"). The net proceeds after discounting and deducting the issuance costs amounted to USD596 million (equivalent to approximately RMB4,037 million). The 2022 Unsecured Bonds will mature on 24 July 2022. The 2022 Unsecured Bonds are listed on the Stock Exchange and dealt in over-the-counter market through a financial institution as the principal agent.

According to the terms and conditions of the 2019 Unsecured Bonds and 2022 Unsecured Bonds (the "Unsecured Bonds"), the Company may at any time and from time to time, on giving not less than 30 nor more than 60 days' notice to the holders of the Unsecured Bonds, redeem the Unsecured Bonds, in whole but not in part, at a make whole price as of, with an accrued and unpaid interest, if any, to (but excluding), the redemption date. The make whole price means, with respect to a bond at the option redemption date, the amount calculated by the quotation agent that is the greater of (1) the present value of the principal amount of the Unsecured Bonds, assuming a scheduled repayment thereof on the maturity date plus all required remaining scheduled interest repayments due on such bond through the maturity date (but excluding accrued and unpaid interest to the option redemption date), computed using a discount rate equalled to the adjusted treasury rate plus 50 basis points, and (2) the principal amount of such bonds.

The estimated fair value of the early redemption right is insignificant at initial recognition and at the end of the reporting periods. The effective interest rate is approximately 3.44% per annum after deducting the adjustment for transaction costs for 2022 Unsecured Bonds.

The Unsecured Bonds recognised in the consolidated statement of financial position are calculated cumulatively as follows:

	2019 **RMB million**	2018 RMB million
Nominal value of Unsecured Bonds	**6,526**	6,526
Discount cost	**(17)**	(17)
Issue costs	**(43)**	(43)
Fair value at date of issuance	**6,466**	6,466
Repurchased and cancelled in 2015	**(2,107)**	(2,107)
Cumulative effective interest recognised	**481**	328
Cumulative interest paid/payable	**(458)**	(311)
Repayment	**(459)**	–
Exchange loss	**246**	163
Carrying amount at 31 December	**4,169**	4,539
Less: Amounts due within one year shown under current liabilities	**–**	(443)
Amounts shown under non-current liabilities	**4,169**	4,096

45. SHARE BASED PAYMENT TRANSACTIONS

The Company has adopted a share award scheme pursuant to the board resolution of the Company dated 30 November 2018 (the "Share Award Scheme").

The Company has adopted share option schemes pursuant to an ordinary resolution passed at an extraordinary general meeting of the Company held on 21 May 2002 (the "Scheme 2002") and an annual general meeting of the Company held on 26 June 2012 (the "Scheme 2012").

a. Share Award Scheme

Pursuant to the Share Award Scheme, the Company had contracted with a trustee to establish a trust (the "Trust") on 12 March 2019. The board of directors (the "Board") may from time to time during the effective period of the Share Award Scheme (a term of 10 years commencing on the adoption of this scheme or early terminated) contribute funds to the Trust and instruct the trustee to purchase shares of the Company on the Stock Exchange or in off-market transactions. Shares purchased and held by the Trust are non-transferrable and have no voting rights. Shares will be granted to selected employees of any members of the Group pursuant to the terms and trust deed of the Share Award Scheme. Vesting of the shares granted to selected employees is conditional upon the fulfilment of service and/or performance as specified by the Board.

On 3 May 2019, the trustee, pursuant to the terms and trust deed of the Share Award Scheme, purchased a total of 2,415,100 shares of the Company over-the-counter from the financial institution under the TRS contract. The cost of the shares purchased was recognised in equity as treasury stocks. As at 31 December 2019, the Board had neither decided or selected employee nor granted any awarded shares.

b. Scheme 2012

On 9 December 2015, the Company granted share options to the Directors and certain employees (the "2015 Grantees") to subscribe for a total of 12,000,000 ordinary shares of the Company under the Scheme 2012. Among the share options granted above, 2,659,000 share options were granted to the Directors and the remaining were granted to certain employees of the Group. Vesting of the share options is conditional upon the fulfilment of certain vesting conditions as set out in the respective offer letters of the 2015 Grantees, which may involve fulfilment of performance rating.

On 28 March 2019, the Company granted share options to Directors and certain employees of the Company, and business consultants who contribute to the success of the Company (the "2019 Grantees") to subscribe for a total of 12,328,000 ordinary shares of the Company under the Scheme 2012. Among the share options granted above, 2,480,000 share options were granted to the Directors and the remaining were granted to certain employees of the Group and business consultants. Vesting of the share options is conditional upon the fulfilment of certain vesting conditions as set out in the respective offer letters of the 2019 Grantees, which may involve fulfilment of performance rating.

2015 Grantees and 2019 Grantees should continue in office and achieve the designated vesting conditions from the date of grant till the exercisable date. Thus, the vesting period of the share options is from the date of the grant until the commencement of the exercise period.

45. SHARE BASED PAYMENT TRANSACTIONS *(continued)*

b. Scheme 2012 *(continued)*

The following tables disclose details of the Company's share options held by the grantees and movements in such holdings under the share option scheme during the current year:

		Date of grant	Exercise period	Exercise price (HK$)	Outstanding at 1.1.2019	Number of options: Granted during the year	Exercised during the year	Forfeited during the year	Reclassified during the year	Outstanding at 31.12.2019
Scheme 2012 – batch 1										
Directors	Tranche 1	9.12.2015	1.4.2017 to 8.12.2025	40.34	230,750	–	(250)	–	–	230,500
	Tranche 2	9.12.2015	1.4.2018 to 8.12.2025	40.34	538,750	–	(73,550)	(22,625)	–	442,575
	Tranche 3	9.12.2015	1.4.2019 to 8.12.2025	40.34	538,750	–	–	–	25	538,775
	Tranche 4	9.12.2015	1.4.2020 to 8.12.2025	40.34	538,750	–	–	–	42,500	581,250
Employees	Tranche 1	9.12.2015	1.4.2017 to 8.12.2025	40.34	406,900	–	(201,650)	–	–	205,250
	Tranche 2	9.12.2015	1.4.2018 to 8.12.2025	40.34	1,030,850	–	(539,287)	(125,302)	–	366,261
	Tranche 3	9.12.2015	1.4.2019 to 8.12.2025	40.34	1,727,750	–	(659,513)	(507,738)	(25)	560,474
	Tranche 4	9.12.2015	1.4.2020 to 8.12.2025	40.34	1,727,750	–	–	(260,250)	(42,500)	1,425,000
Subtotal					6,740,250	–	(1,474,250)	(915,915)	–	4,350,085
Exercisable at the end of the year										2,343,835
Weighted average exercise price										HK$40.34

		Date of grant	Exercise period	Exercise price (HK$)	Outstanding at 1.1.2019	Number of options: Granted during the year	Exercised during the year	Forfeited during the year	Reclassified during the year	Outstanding at 31.12.2019
Scheme 2012 – batch 2										
Directors	Tranche 1	28.3.2019	1.4.2020 to 27.3.2029	76.36	–	105,000	–	(90,000)	–	15,000
	Tranche 2	28.3.2019	1.4.2021 to 27.3.2029	76.36	–	791,600	–	(90,000)	66,600	768,200
	Tranche 3	28.3.2019	1.4.2022 to 27.3.2029	76.36	–	791,700	–	(90,000)	66,700	768,400
	Tranche 4	28.3.2019	1.4.2023 to 27.3.2029	76.36	–	791,700	–	(90,000)	66,700	768,400
Employees	Tranche 1	28.3.2019	1.4.2020 to 27.3.2029	76.36	–	1,061,300	–	–	–	1,061,300
	Tranche 2	28.3.2019	1.4.2021 to 27.3.2029	76.36	–	2,606,500	–	–	(66,600)	2,539,900
	Tranche 3	28.3.2019	1.4.2022 to 27.3.2029	76.36	–	2,608,100	–	–	(66,700)	2,541,400
	Tranche 4	28.3.2019	1.4.2023 to 27.3.2029	76.36	–	2,608,100	–	–	(66,700)	2,541,400
Business Consultants	Tranche 1	28.3.2019	1.4.2020 to 27.3.2029	76.36	–	241,000	–	(40,000)	–	201,000
	Tranche 2	28.3.2019	1.4.2021 to 27.3.2029	76.36	–	241,000	–	(40,000)	–	201,000
	Tranche 3	28.3.2019	1.4.2022 to 27.3.2029	76.36	–	241,000	–	(40,000)	–	201,000
	Tranche 4	28.3.2019	1.4.2023 to 27.3.2029	76.36	–	241,000	–	(40,000)	–	201,000
Subtotal					–	12,328,000	–	(520,000)	–	11,808,000
Exercisable at the end of the year										–
Weighted average exercise price										HK$76.36
Total					6,740,250	12,328,000	(1,474,250)	(1,435,915)	–	16,158,085

45. SHARE BASED PAYMENT TRANSACTIONS *(continued)*

b. Scheme 2012 *(continued)*

The following tables disclose details of the Company's share options held by the grantees and movements in such holdings under the share option scheme during the prior year:

						Number of options			
		Date of grant	Exercise period	Exercise price (HK$)	Outstanding at 1.1.2018	Exercised during the year	Reclassified during the year	Forfeited during the year	Outstanding at 31.12.2018
Directors	Tranche 1	9.12.2015	1.4.2017 to 8.12.2025	40.34	230,750	–	–	–	230,750
	Tranche 2	9.12.2015	1.4.2018 to 8.12.2025	40.34	538,750	–	–	–	538,750
	Tranche 3	9.12.2015	1.4.2019 to 8.12.2025	40.34	538,750	–	–	–	538,750
	Tranche 4	9.12.2015	1.4.2020 to 8.12.2025	40.34	538,750	–	–	–	538,750
Employees	Tranche 1	9.12.2015	1.4.2017 to 8.12.2025	40.34	980,500	(511,100)	–	(62,500)	406,900
	Tranche 2	9.12.2015	1.4.2018 to 8.12.2025	40.34	2,020,000	(514,400)	–	(474,750)	1,030,850
	Tranche 3	9.12.2015	1.4.2019 to 8.12.2025	40.34	2,020,000	–	–	(292,250)	1,727,750
	Tranche 4	9.12.2015	1.4.2020 to 8.12.2025	40.34	2,020,000	–	–	(292,250)	1,727,750
					8,887,500	(1,025,500)	–	(1,121,750)	6,740,250
Exercisable at the end of the year									2,207,250
Weighted average exercise price									HK$40.34

Exercise price of the share options granted on 9 December 2015 is HK$40.34 per share, which represents the highest of (i) the closing price of HK$39.00 per share as stated in the daily quotations sheet of the Stock Exchange on 9 December 2015, being the date of grant; (ii) the average closing price of HK$40.34 per share as stated in the daily quotations sheets of the Stock Exchange for the five trading days immediately preceding the date of grant; and (iii) the nominal value of the share.

45. SHARE BASED PAYMENT TRANSACTIONS *(continued)*

b. Scheme 2012 *(continued)*

The total fair value of the options granted on 9 December 2015 calculated by using the binomial model was HK$194 million.

Exercise price of the share options granted on 28 March 2019 is HK$76.36 per share, which represents the highest of (i) the closing price of HK$74.10 per share as stated in the daily quotations sheet of the Stock Exchange on 28 March 2019, being the date of grant; (ii) the average closing price of HK$76.36 per share as stated in the daily quotations sheets of the Stock Exchange for the five trading days immediately preceding the date of grant; and (iii) the nominal value of the share.

The total fair value of the options granted on 28 March 2019 calculated by using the binomial model was HK$336 million.

During the year ended 31 December 2019, 12,328,000 (2018: nil) share options were granted, 1,474,250 (2018: 1,025,500) share options were exercised and 1,435,915 (2018: 1,121,750) share options were forfeited. As at 31 December 2019, the number of outstanding share options is 16,158,085 (2018: 6,740,250). During the year, the Group recognised share-based payment expenses of RMB74 million (2018: RMB19 million) and RMB24 million (2018: RMB15 million) was transferred from share options reserve to share premium upon exercise of share options.

c. Scheme 2002

On 14 June 2010, the Company granted share options to the Directors and certain employees ("Grantees") to subscribe for a total of 33,490,000 ordinary shares of HK$0.1 each in the share capital of the Company under the share option scheme adopted by the Company on 21 May 2002, subject to acceptance by the Grantees.

Among the share options granted above, 14,810,000 share options were granted to the Directors to subscribe for a total of 14,810,000 shares of the Company and 18,680,000 share options were granted to certain employees of the Group to subscribe for 18,680,000 shares of the Company.

As at the end 31 December 2019, the number of outstanding share option granted to certain employees of the Group is 200,000 (2018: 200,000).

During the current and prior year, the Group recognised no share-based payment expenses as all the share options have been fully vested.

46. RETIREMENT BENEFITS SCHEME

	2019 **RMB million**	2018 RMB million
Retirement benefit scheme contribution made during the year	**220**	215

According to the relevant laws and regulations in the PRC, the PRC subsidiaries within the Group are required to contribute a certain percentage of the payrolls of their employees to the retirement benefits scheme to fund the retirement benefits of their employees. The Group operates a Mandatory Provident Fund Scheme (the "MPF Scheme") for all qualifying employees in Hong Kong. The assets of the schemes are held separately from those of the Group, in funds under the control of trustees. The Group contributes 5% of relevant payroll costs to the MPF Scheme, contribution of which is matched by employees. The maximum monthly amount of contribution is limited to HK$1,500 per employee.

47. ACQUISITION OF BUSINESSES

a. Acquisition of businesses during the year ended 31 December 2019

Acquisition date	Company acquired	Registered capital acquired	Consideration RMB million	Nature of business
12 February 2019	福建省閩昇燃氣有限公司 ("Minsheng")	80.00%	40	Retail gas sales business
18 March 2019	滄州市南大港管理區盛德燃氣有限公司 ("Nandagang") (note a)	65.00%	38	Retail gas sales business
29 March 2019	萊蕪金鴻管道天然氣有限公司, 寧陽金鴻天然氣有限公司, 壽光樂義華璽天然氣利用有限公司 and 綏化市中油金鴻燃氣供應管理有限公司 (collectively referred to as "Jinhong")	100.00%	258	Retail gas sales business
2 April 2019	孟村回族自治縣盛德燃氣有限公司 ("Mengcun") (note b)	65.00%	71	Retail gas sales business
18 April 2019	臨沂華油眾德燃氣有限公司 ("Linyi")	70.00%	66	Retail gas sales business
8 May 2019	龍游中機新奧智慧能源有限公司 ("Longyou") (note c)	55.00%	31	Sales of integrated energy and services
21 August 2019	隆昌中歐油氣能源有限公司 ("Longchang")	60.00%	69	Retail gas sales business
3 September 2019	文安縣昱通燃氣有限公司 ("Wenan")	100.00%	24	Retail gas sales business
19 September 2019	宣燃天然氣股份有限公司 ("Xuanran")	97.67%	988	Retail gas sales business
21 October 2019	蚌埠眾德燃氣有限公司 ("Bengbu")	100.00%	29	Retail gas sales business
28 October 2019	臨城國源燃氣有限公司 ("Lincheng")	80.00%	47	Retail gas sales business
28 November 2019	台玻安徽能源有限公司 ("Taibo")	80.00%	14	Retail gas sales business
4 December 2019	唐山市蘭天燃氣有限公司 ("Tangshan")	100.00%	45	Retail gas sales business
26 December 2019	山東新燃供氣有限公司 ("Xinran")	70.00%	97	Retail gas sales business
1 January 2019	合肥新奧中汽能源發展有限公司 ("Hefeizhongqi") (note d)	N/A	N/A	Retail gas sales business

Notes:

a. The Group acquired Nandagang by contributing capital to Nandagang, which was contingent on the net profit of Nandagang for the next three years and estimated to be approximately RMB38 million.

b. The Group acquired Mengcun by contributing capital to Mengcun, which was contingent on the net profit of Mengcun for the next three years and estimated to be approximately RMB71 million.

c. The Group acquired further 55% of the registered capital of Longyou, which then became a wholly owned subsidiary of the Group from a joint venture.

d. A joint venture of the Group, Hefeizhongqi amended its articles of association, which then became a subsidiary of the Group from a joint venture with no consideration.

Minsheng, Jinhong, Nandagang, Mengcun, Linyi, Longyou, Longchang, Wenan, Xuanran, Bengbu, Lincheng, Taibo, Tangshan, Xinran and Hefeizhongqi were acquired (collectively referred to as "2019 Companies Acquired") with the objective of expansion in market coverage of the Group's business.

47. ACQUISITION OF BUSINESSES *(continued)*

a. Acquisition of businesses during the year ended 31 December 2019 *(continued)*

The amounts of fair value of the assets and liabilities at the date of acquisition are as follows:

	Jinhong RMB million	Mengcun & Nandagang RMB million	Xuanran RMB million	Others RMB million	Total RMB million
Non-current assets					
Property, plant and equipment	313	56	367	268	1,004
Intangible assets – right of operation	58	80	678	467	1,283
Right-of-use assets	18	7	23	30	78
Interest in joint ventures	–	–	33	20	53
Long term receivables	–	–	–	1	1
Current assets					
Inventories	2	5	37	10	54
Trade and other receivables	236	29	23	133	421
Cash and cash equivalents	50	2	163	17	232
Current liabilities					
Trade and other payables	(372)	(99)	(65)	(108)	(644)
Contract liabilities	–	–	(140)	(57)	(197)
Bank and other loans – due within one year	(17)	(2)	(25)	(87)	(131)
Non-current liabilities					
Deferred tax liabilities	(15)	(20)	(185)	(121)	(341)
Net assets acquired	273	58	909	573	1,813
Capital injection by the Group (contingent and provisional value)	–	109	–	50	159
Net assets acquired including capital injection by the Group (provisional value)	273	167	909	623	1,972
Goodwill (bargain purchase gain) arising on acquisition (determined on a provisional basis)					
Total consideration	258	109	988	462	1,817
Add: Non-controlling interests	–	58	21	147	226
Add: Fair value of previously held interest	–	–	–	45	45
Less: Fair value of identified net assets acquired including capital injection by the Group	(273)	(167)	(909)	(623)	(1,972)
	(15)	-	100	31	116
Gain on remeasurement of the investments in joint ventures previously held by the Group					
Fair value of previously held interest	–	–	–	45	45
Less: Carrying amount of the equity interest	–	–	–	(34)	(34)
	–	–	–	11	11
Total consideration satisfied by:					
Cash	258	–	904	277	1,439
Consideration payables	–	–	84	135	219
Capital injection by the Group (provisional value)	–	109	–	50	159
	258	109	988	462	1,817
Net cash (outflow) inflow arising on acquisition:					
Cash consideration paid	(258)	–	(904)	(277)	(1,439)
Less: Deposit paid in the prior year	133	–	–	9	142
Less: Cash and cash equivalents acquired	50	2	163	17	232
	(75)	2	(741)	(251)	(1,065)

47. ACQUISITION OF BUSINESSES *(continued)*

a. Acquisition of businesses during the year ended 31 December 2019 *(continued)*

The fair value of property, plant and equipment and intangible assets at the date of acquisition is provisional and pending for the valuation by an independent professional valuer.

Included in the profit for the year ended 31 December 2019 is RMB67 million of profit attributable to the additional businesses generated by 2019 Companies Acquired. Revenue for the year ended 31 December 2019 includes RMB1,120 million generated from 2019 Companies Acquired.

Had the acquisitions of 2019 Companies Acquired been effected on 1 January 2019, the revenue of the Group for the year ended 31 December 2019 would have been approximately RMB72,284 million, and the profit for the year would have been approximately RMB6,869 million. The pro forma information is for illustrative purposes only and is not necessarily an indication of revenue and results of operations of the Group that actually would have been achieved had the acquisitions been completed on 1 January 2019, nor is intended to be a projection of future results.

In determining the "pro-forma" revenue and profit of the Group, had 2019 Companies Acquired been acquired on 1 January 2019, the Directors have calculated the depreciation and amortisation of property, plant and equipment and intangible assets acquired on the basis of the fair values rather than the carrying amounts recognised in the pre-acquisition financial statements.

b. Acquisition of businesses during the year ended 31 December 2018

Acquisition date	Company acquired	Registered capital acquired	Consideration RMB million	Nature of business
30 January 2018	寧德利拓能源有限公司 ("Ningde")	100.00%	29	Retail gas sales business
8 February 2018	玉田新奧燃氣有限公司 ("Yutian")	55.00%	25	Retail gas sales business
12 April 2018	安徽省安燃燃氣有限公司 ("Anran")	60.00%	96	Retail gas sales business
27 June 2018	聊城金奧燃氣發展有限公司 and 聊城開發區金奧能源有限公司 ("Liaocheng") (note a)	50.00%	180	Retail gas sales business
16 August 2018	Excellence Award Holding Company Limited ("EAH") (note b)	100.00%	2,502	(note b)
21 November 2018	懷仁市金源天然氣有限責任公司 ("Huairen")	90.00%	198	Retail gas sales business
4 December 2018	香港天成能源投資集團有限公司 ("Tiancheng")	100.00%	108	Retail gas sales business
24 December 2018	常熟市銅業總公司有限公司 ("Changshu")	100.00%	1	Sales of integrated energy and services
29 December 2018	東莞市新奧車用燃氣發展有限公司 ("Dongguan") (note c)	N/A	N/A	Retail gas sales business

47. ACQUISITION OF BUSINESSES *(continued)*

b. Acquisition of businesses during the year ended 31 December 2018 *(continued)*

Notes:

a. The Group acquired further 50% of the registered capital of Liaocheng, which then became wholly-owned subsidiaries of the Group from joint ventures.

b. On 16 August 2018 ("Completion Date"), the Group acquired 100% of the registered capital of Excellence Award Holding Company Limited ("EAH") from a company controlled by Mr. Wang. EAH and its subsidiaries (collectively referred to as "EAH Group") are principally engaged in the provision of technology solutions of multiple forms of energy in the PRC. The acquisition was made as part of the Group's strategy to accelerate its integrated energy business development, to foster new profit growth driver, facilitate its gas distribution business development, and also to eliminate continuing connected transactions between the Group and the EAH Group. The total consideration was approximately RMB2,502 million, representing issuance of 39,926,534 ordinary shares of the Company measured at closing market price on Completion Date of HK$71.35 per share. The Group incurred transaction costs of RMB22 million for this acquisition. Other than the incremental costs directly attributable to issuance of the Company's ordinary shares, all other transaction costs have been expensed and are included in administrative expenses in the consolidated statement of profit or loss.

c. Dongguan amended its articles of association, which then became a subsidiary of the Group from a joint venture.

Ningde, Yutian, Anran, Liaocheng, Huairen, Tiancheng, Changshu and Dongguan were acquired with the objective of expansion in market coverage of the Group's business.

The amounts of fair value of the assets and liabilities at the dates of acquisition are as follows:

	Dongguan & Liaocheng RMB million	**EAH Group** RMB million	**Others** RMB million
Non-current assets			
Property, plant and equipment	299	69	317
Intangible assets	250	549	488
Prepaid lease payments	16	–	36
Interests in joint ventures	20	4	–
Other receivables	–	24	–
Current assets			
Inventories	5	170	8
Trade and other receivables	60	782	70
Cash and cash equivalents	154	16	20
Restricted bank deposits	–	15	–
Contract assets	–	20	–
Amounts due from related companies	–	396	–
Current liabilities			
Trade and other payables	(216)	(678)	(223)
Bank and other loans – due within one year	–	(165)	(41)
Contract liabilities	–	(55)	–
Amounts due to related companies	–	(478)	–
Non-current liabilities			
Deferred tax liabilities	(64)	(137)	(124)
Bank and other loans – due after one year	–	(23)	(9)
Deferred income	–	(5)	–
Net assets acquired	524	504	542
Goodwill arising on acquisition			
Total consideration	180	2,502	456
Add: Non-controlling interests	87	–	120
Add: Fair value of previously held interest	281	–	–
Less: Fair value of identified net assets acquired	(524)	(504)	(542)
	24	1,998	34

47. ACQUISITION OF BUSINESSES *(continued)*

b. Acquisition of businesses during the year ended 31 December 2018 *(continued)*

	Dongguan & Liaocheng RMB million	EAH Group RMB million	Others RMB million
Gain on remeasurement of the investments in joint ventures previously held by the Group			
Fair value of previously held interest	281	–	–
Less: Carrying amount of the equity interest	(163)	–	–
	118	–	–
Total consideration satisfied by:			
Cash	180	–	387
Consideration payables	–	–	69
Issuance of the Company's ordinary shares	–	2,502	–
	180	2,502	456
Net cash (outflow) inflow arising on acquisition:			
Cash consideration paid	(180)	–	(387)
Less: Deposit paid in the prior year	–	–	21
Less: Cash and cash equivalents acquired	154	16	20
	(26)	16	(346)

Goodwill arises in the acquisition of businesses because the consideration included a control premium. In addition, the consideration paid for the acquisitions effectively included amounts in relation to the benefit of synergies, revenue growth, further market development and the assembled workforce of the businesses. These benefits are not recognised separately from goodwill as they do not meet the recognition criteria for identifiable intangible assets.

48. ACQUISITION OF ASSETS THROUGH ACQUISITIONS OF SUBSIDIARIES

a. Acquisition of assets through acquisitions of subsidiaries during the year ended 31 December 2019

To facilitate the Group's overall business, the Group will from time to time liaise with the local PRC governments and potential vendors to acquire the local rights of operation, gas assets and integrated energy related assets through acquisition of subsidiaries. During the year ended 31 December 2019, the Group has acquired assets through the acquisitions of the following subsidiaries:

Acquisition date	Company acquired	Registered capital acquired	Consideration RMB million
2 January 2019	安徽池州瑞恩能源有限公司	90.00%	43
8 January 2019	南豐縣中氣天然氣有限公司	100.00%	10
10 January 2019	日照中能燃氣有限公司	100.00%	26
18 January 2019	壽寧縣中氣新能源有限公司	100.00%	5
22 January 2019	霞浦縣中氣新能源有限公司	100.00%	10
22 January 2019	古田縣中氣新能源有限公司	100.00%	15
15 April 2019	大慶高新博源熱電有限公司 (note)	18.15%	22
8 November 2019	內蒙古德昱生物質能熱電有限公司	51.00%	31
15 November 2019	安慶市濱江能源有限公司	82.55%	18

Note: The Group acquired further 18.15% of the equity interest of 大慶高新博源熱電有限公司, which then became a 51% owned subsidiary of the Group from an associate.

48. ACQUISITION OF ASSETS THROUGH ACQUISITIONS OF SUBSIDIARIES *(continued)*

a. Acquisition of assets through acquisitions of subsidiaries during the year ended 31 December 2019 *(continued)*

The transactions were accounted for as acquisition of assets through acquisition of subsidiaries and the fair value of the considerations allocated to the assets and liabilities acquired are as follows:

	RMB million
Non-current assets	
Property, plant and equipment	222
Intangible assets	54
Right-of-use assets	46
Current assets	
Trade and other receivables	85
Cash and cash equivalents	33
Current liabilities	
Trade and other payables	(67)
Bank and other loans – due within one year	(84)
Net assets acquired	289
Capital injection by the Group	31
Net assets acquired including capital injection by the Group	320
Less: Non-controlling interests	(88)
Less: Fair value of previously held interest	(52)
Total consideration	180
Total consideration satisfied by:	
Cash	107
Consideration payables	42
Capital injection by the Group	31
	180
Net cash outflow arising on acquisition:	
Cash consideration paid	(107)
Less: Deposit paid in the prior year	37
Less: Cash and cash equivalents acquired	33
	(37)

48. ACQUISITION OF ASSETS THROUGH ACQUISITIONS OF SUBSIDIARIES *(continued)*

b. Acquisition of assets through acquisitions of subsidiaries during the year ended 31 December 2018

To facilitate the Group's overall business, the Group will from time to time liaise with the local PRC governments and potential vendors to acquire the local rights of operation, gas assets and integrated energy related assets by acquisition of subsidiaries. During the year ended 31 December 2018, the Group has acquired assets through the acquisitions of the following subsidiaries:

Acquisition date	Company acquired	Registered capital acquired	Consideration RMB million
5 January 2018	上海綠環加氣有限公司	90.00%	0.4
17 April 2018	懷化中油振宇清潔能源有限公司	70.00%	5
21 June 2018	天長市徐礦天然氣有限公司	90.00%	72
11 September 2018	葉縣東方天然氣有限公司	80.00%	17
26 September 2018	上海新晟文化用品有限公司 (note a)	100.00%	1
1 November 2018	東營新奧燃氣有限公司	100.00%	37
16 November 2018	周口易聖熱力供應有限公司	51.00%	22
28 November 2018	商水新奧能源發展有限公司	90.00%	9
26 December 2018	壽光卓宇新能源有限公司	100.00%	0.2
26 December 2018	新鄉縣中能服熱力有限公司	80.00%	10
28 December 2018	廊坊廣核開新能源服務有限公司 (note b)	51.00%	33
6 December 2018	開封新奧中原燃氣有限公司 (note c)	N/A	N/A
17 December 2018	淄博新奧燃氣有限公司 (note d)	N/A	N/A

Notes:

a. 上海新晟文化用品有限公司 was acquired from a company controlled by Mr. Wang.

b. The Group acquired further 51% of the equity interest of 廊坊廣核開新能源服務有限公司, which then became 90% owned subsidiary of the Group from an associate.

c. 開封新奧中原燃氣有限公司 amended its articles of association, which then became 60% owned subsidiary of the Group from a joint venture.

d. 淄博新奧燃氣有限公司 amended its articles of association, which then became 60% owned subsidiary of the Group from a joint venture.

48. ACQUISITION OF ASSETS THROUGH ACQUISITIONS OF SUBSIDIARIES *(continued)*

b. Acquisition of assets through acquisitions of subsidiaries during the year ended 31 December 2018 *(continued)*

The transactions were accounted for as acquisition of assets through acquisition of subsidiaries and the fair value of the considerations allocated to the assets and liabilities acquired are as follows:

	RMB million
Non-current assets	
Property, plant and equipment	223
Intangible assets – right of operation	138
Prepaid lease payments	32
Current assets	
Inventories	2
Trade and other receivables	65
Cash and cash equivalents	18
Current liabilities	
Trade and other payables	(186)
Net assets acquired	292
Less: Non-controlling interests	(52)
Less: Fair value of previously held interest	(34)
Total consideration	206
Loss on remeasurement of the investment in a joint venture previously held by the Group	
Fair value of previously held interest	4
Less: Carrying amount of the equity interest	(11)
	(7)
Total consideration satisfied by:	
Cash	150
Consideration payables	56
	206
Net cash outflow arising on acquisition:	
Cash consideration paid	(150)
Less: Cash and cash equivalents acquired	18
	(132)

49. DISPOSAL OF SUBSIDIARIES

a. Disposal of subsidiaries during the year ended 31 December 2019

On 15 March 2019, a subsidiary of the Group, 長沙新奧金滿地清潔能源有限公司 amended its articles of association, which then became a 48.42% owned joint venture of the Group.

On 22 March 2019, the Group disposed of 70% equity interest in 惠州新鑫新能源有限公司 at a cash consideration of RMB45 million.

On 22 November 2019, the Group disposed of 80% equity interest in 三河市新奧天龍車用燃氣有限公司 at a cash consideration of RMB3 million.

The net assets at the dates of disposal were as follow:

	RMB million
Non-current assets	
Property, plant and equipment	12
Right-of-use assets	65
Current assets	
Cash and cash equivalents	3
Current liabilities	
Trade and other payables	(8)
Net assets	72
Less: Non-controlling interests	(2)
Net assets attributable to the owners of the Company disposed of	70

The loss on disposal of subsidiaries recognised in profit or loss was calculated as below:

	RMB million
Fair value of the residual interests	20
Consideration received	45
Consideration receivable	3
Less: Net assets attributable to owners of the Company derecognised	(70)
Loss on disposal of subsidiaries	(2)
Net cash inflow arising from the disposal:	
Cash consideration received	45
Less: Cash and cash equivalents disposed of	(3)
	42

49. DISPOSAL OF SUBSIDIARIES *(continued)*

b. Disposal of subsidiaries during the year ended 31 December 2018

On 31 January 2018, the Group disposed of 100% equity interest in Green Transportation Fuels North America LLC and ENN Canada Corporation (collectively referred to as "NA subsidiaries") at a cash consideration of USD3 million (approximately RMB18 million) to an independent third party. NA subsidiaries were classified as assets held for sale as at 31 December 2017.

On 5 June 2018, the Group disposed of 60% equity interest in 煙台新奧實業有限公司 ("Yantai Xinao") at cash consideration of RMB62 million to a joint venture. As a result, the Group lost control on Yantai Xinao and its subsidiary.

On 30 November 2018, the Group disposed of 51% equity interest in 邯鄲新奧萬合清潔能源有限公司 ("Handan Xinao") at a cash consideration of RMB10 million.

The net assets at the dates of disposal were as follow:

	NA subsidiaries RMB million	Yantai Xinao RMB million	Handan Xinao RMB million
Non-current assets			
Property, plant & equipment	47	93	27
Prepaid lease payment	–	3	–
Current assets			
Inventories	–	1	1
Trade and other receivables	5	67	18
Cash and cash equivalents	5	32	–
Current liabilities			
Trade and other payables	(42)	(98)	(15)
Taxation payable	–	(1)	–
Net assets	15	97	31
Less: Non-controlling interests	–	(35)	(16)
Net assets attributable to owners of the Company disposed of	15	62	15

The gain (loss) on disposal recognised in profit or loss was calculated as below:

	NA subsidiaries RMB million	Yantai Xinao RMB million	Handan Xinao RMB million
Consideration received	18	62	–
Consideration receivable	–	–	10
Less: Net assets attributable to owners of the Company derecognised	(15)	(62)	(15)
Gain (loss) on disposal of subsidiaries	3	–	(5)
Net cash inflow arising from the disposal:			
Cash consideration received	18	62	–
Less: Cash and cash equivalents disposed of	(5)	(32)	–
	13	30	–

50. COMMITMENTS

a. Capital commitments

	2019 RMB million	2018 RMB million
Capital expenditure in respect of acquisition of property, plant and equipment contracted for but not provided in the consolidated financial statements	**1,021**	1,113
Capital commitments in respect of		
– investments in joint ventures	**495**	212
– investments in associates	**518**	219
– other equity investments	**259**	92

b. Other commitments

Since the year ended 31 December 2016, the Group has commitments to acquire LNG from certain suppliers. The delivery of LNG under such arrangements commenced in 2018 and last for 5 to 10 years. The Group is obliged to make "take-or-pay" payment to suppliers for the quantity contracted but not delivered.

In the opinion of the Directors, these LNG will be utilised to satisfy the demand of domestic natural gas consumption from both the Group's piped gas customers and wholesale customers. The Directors determined that such LNG purchase arrangements are entered into and continued to be held for the purpose of the receipt of a non-financial item in accordance with the Group's expected purchase, sale and usage. Accordingly, the LNG purchase arrangements are not considered as derivatives financial instruments within the scope of HKFRS 9 since the initial recognition.

The relevant purchase prices of these arrangements will be determined by reference to certain variables, such as petroleum price indexes prevailing at the market, and are denominated in USD. The Directors assessed the economic characteristics and risks of the embedded derivatives and concluded that they are closely related to the economic risks and characteristics of the relevant host contracts. Accordingly, the embedded derivatives are not separated from the LNG purchase arrangements as derivative financial instruments recognised in the consolidated financial statements.

51. LEASE COMMITMENTS

The Group as lessee

	2018 RMB million
Minimum lease payments paid under operating leases during the year:	
Premises	138
Other assets	27
	165

51. LEASE COMMITMENTS *(continued)*

The Group as lessee *(continued)*

The Group had commitments for future minimum lease payments under non-cancellable operating leases in respect of rented premises which fall due as follows:

	2018 RMB million
Within one year	148
In the second to fifth year inclusive	347
Over five years	344
	839

Leases are negotiated for an average term of four years and rentals are fixed for an average of one year.

The Group as lessor

The Group's investment properties are held for rental purposes. Property rental income earned during the year was RMB10 million (2018: RMB13 million). All of the properties held have committed tenants for terms ranging from one to twenty years.

At the end of the reporting period, the Group had contracted with tenants for the following future minimum lease payments:

	2019 **RMB million**	2018 RMB million
Within one year	**17**	14
In the second to fifth year inclusive	**37**	26
Over five years	**34**	24
	88	64

52. PLEDGE OF ASSETS

At the end of the reporting period, the Group pledged certain assets as securities for bank and other loans, bill facilities and contracts granted to the Group, associates and joint ventures as follows:

	2019 **RMB million**	2018 RMB million
Carrying amount of:		
Property, plant and equipment	**106**	6
Restricted bank deposits	**628**	163
Right-of-use assets	**7**	–
Bills receivable	**49**	217

In addition to the above, the Group has also pledged its rights to receive construction and installation and gas supply fee income of certain subsidiaries in favour of banks to secure banking facilities amounting to RMB868 million (2018: RMB810 million) granted to the Group, of which RMB187 million (2018: RMB432 million) has been utilised up to 31 December 2019.

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS

a. Capital risk management

The Group manages its capital to ensure that entities in the Group will be able to continue as a going concern, to maintain the confidence of creditors, to sustain future development of the entities and to maximise the return to the equity holders of the Company. The capital structure of the Group consists of net debt (borrowings disclosed in Notes 41, 42, 43 and 44, net of cash and cash equivalents) and total equity of the Group.

The Group manages its capital base through net gearing ratio. The Directors review the capital structure on a semi-annual basis. The Group has a target of net gearing ratio below 100% and will maintain the ratio within target by issue of new debts, repayment of debts, issue of new shares, repurchase of shares or payment of dividends. The Group's overall strategy remains unchanged from prior year. The Group repurchased certain senior notes in order to better manage its net gearing ratio. The net gearing ratio at the end of the reporting period was as follows:

	2019 RMB million	2018 RMB million
Bank and other loans	**10,343**	10,722
Corporate bonds	**2,094**	2,497
Senior notes	**2,539**	2,491
Unsecured bonds	**4,169**	4,539
	19,145	20,249
Less: Cash and cash equivalents	**(7,373)**	(7,923)
Net debt	**11,772**	12,326
Total equity	**31,020**	25,554

	2019 %	2018 %
Net debt to total equity ratio	**37.9**	48.2

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

b. Categories of financial instruments

The carrying amounts of each of the following categories of financial assets and financial liabilities at the end of the reporting period are set out as follows:

	2019 **RMB million**	2018 RMB million
Financial assets		
Financial assets at FVTPL	**5,530**	5,580
Equity instruments at FVTOCI	**123**	112
Financial assets at amortised cost	**14,954**	16,504
Financial liabilities		
Financial liabilities at FVTPL	**746**	1,143
Financial liabilities at amortised cost	**29,548**	31,159

c. Financial risk management objectives and policies

The Group's major financial instruments include trade and other receivables, contract assets, equity investments, financial assets/liabilities at FVTPL, amounts due from/to associates, joint ventures and related companies, cash and cash equivalents, restricted bank deposits, trade and other payables, contract liabilities, lease liabilities, bank and other loans, corporate bonds, senior notes and unsecured bonds. Details of these financial instruments are disclosed in respective notes. The risks associated with these financial instruments include market risk (including foreign currency risk, interest rate risk, commodity price risk and other price risk), credit risk and liquidity risk.

Foreign currency risk management

The functional currency of the Group's most entities is RMB in which most of the transactions are denominated. However, certain loans, senior notes and unsecured bonds issued by the Group, receivables and payables and certain bank balances kept by the Group are denominated in foreign currencies.

To mitigate the foreign exchange exposure, the Group entered into various Foreign Currency Derivatives with certain financial institutions during the current and prior years as set out in Note 25. The management of the Group monitors foreign exchange exposure and will consider to hedge its foreign exchange exposure should the need arises.

The carrying amounts of the Group's foreign currency denominated monetary assets and monetary liabilities at the end of the reporting period are as follows:

	Assets		**Liabilities**	
	2019 **RMB million**	2018 RMB million	**2019** **RMB million**	2018 RMB million
Foreign currency:				
USD	**129**	578	**11,702**	12,349
HK$	**23**	7	**1,380**	478

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Foreign currency risk management (continued)

The following table details the Group's sensitivity to a reasonable possible change in exchange rate of each foreign currency against RMB, while all other variables are held constant. The sensitivity analysis includes only outstanding monetary items denominated in foreign currency without considering the impact of the Foreign Currency Derivatives and adjusts their translations at the end of the reporting period for a change in foreign currency exchange rate as set out below:

	USD		**HK$**	
	2019	2018	**2019**	2018
	%	%	**%**	%
Possible change in foreign exchange rate	**5**	5	**5**	5

	2019	2018	**2019**	2018
	RMB million	RMB million	**RMB million**	RMB million
(Decrease) increase in profit after taxation for the year:				
– if RMB weakens against foreign currencies	**(580)**	(592)	**(68)**	(24)
– if RMB strengthens against foreign currencies	**580**	592	**68**	24

In the opinion of the Directors, the sensitivity analysis is unrepresentative of the inherent foreign exchange risk as the year end exposure and does not reflect the exposure during the year, and some of the Group's foreign currency exposure has been reduced due to the offsetting effect of the Foreign Currency Derivatives.

Interest rate risk management

The Group does not have any specific interest rate hedging policy except that the Group would regularly review the market interest rates to capture the potential opportunities to reduce the cost of borrowings. Accordingly, the Group will enter into interest rate swap arrangement to mitigate the interest rate risk if appropriate.

Fair value interest rate risk

The Group's fair value interest rate risk relates primarily to non-current amounts due from associates and joint ventures, amounts due to associates and joint ventures, and fixed-rate bank and other loans, corporate bonds, senior notes and unsecured bonds (see Notes 29, 30, 41, 42, 43 and 44 for details of these amounts, loans, bonds and notes respectively).

The fair value interest rate risk on bank balance and deposits is insignificant as the terms of the fixed deposits are relatively short.

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Cash flow interest rate risk

The Group's cash flow interest rate risk relates primarily to floating-rate bank loans (see Note 41 for details of these amounts). The Directors consider that the Group is not exposed to significant cash flow interest rate risk relating to bank deposits, which are primarily short term in nature and basically carried at stable market interest rates.

The Group's sensitivity to cash flow interest rate risk has been determined based on the exposure to interest rates for the floating-rate bank loans. The analysis is prepared assuming that the amount of liabilities outstanding at the end of the reporting period was outstanding for the whole year and excluding the interest expected to be capitalised.

	2019	2018
	%	%
Possible change in interest rate	**50 basis points**	50 basis points

	2019	2018
	RMB million	RMB million
(Decrease) increase in profit after taxation for the year		
– as a result of increase in interest rate	**(14)**	(15)
– as a result of decrease in interest rate	**14**	15

The possible change in the interest rate does not affect the equity of the Group in both years.

Commodity price risk

In the normal course of business, the Group imported LNG to satisfy the demands of downstream customers under long-term "take-or-pay" purchase agreements as set out in Note 50. Accordingly, the Group is exposed to fluctuations in prevalent crude oil/gas market prices, which are used for the determination of the price of LNG. This exposure is managed with the use of derivative financial instruments by the Group. The profit or loss generated from these derivatives is dependent on the combination of contracts which generate payoffs in any particular range of commodity prices.

Derivative financial instruments are used solely for financial risk management purposes and the Group does not hold or issue derivative financial statements for speculation purposes. The management of the Group monitors commodity price risk exposure regularly and will consider to hedge its commodity price risk exposure should the need arises.

Sensitivity analysis on commodity derivative contracts

A decrease of 5% in relevant commodity prices at the end of the year ended 31 December 2019 and 2018 would have affected profit or loss for the years by amount shown below. These amounts represent the change in fair value of commodity derivative contracts at the reporting date.

	2019	2018
	RMB million	RMB million
Decrease in profit before taxation for the year	**(7)**	(194)

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Other price risk

The Group is mainly exposed to price risk through equity instrument measured at FVTPL and FVTOCI. The Directors do not implement specific measurements to mitigate the price risk.

If the market price of equity instrument measured at FVTPL and FVTOCI increased or decreased by 5%, the Group would recognise additional gains or losses of RMB248 million (2018: RMB 247 million) respectively.

Credit risk and impairment assessment

Other than those financial assets whose carrying amounts best represent the maximum exposure to credit risk, the Group's maximum exposure to credit risk which will cause a financial loss to the Group arising from the amount of financial guarantees provided by the Group. The Group does not hold any collateral or other credit enhancements to cover its credit risks associated with its financial assets, except that the credit risks associated with loan receivables is mitigated because they are secured over equipment, receivables and certain entities' equities and settlement of certain trade receivables are backed by bills issued by reputable financial institutions.

Trade receivables and contract assets arising from contracts with customers

In order to minimise the credit risk, the management of the Group has delegated a team responsible for determination of credit limits and credit approvals. Other monitoring procedures are in place to ensure that follow-up action is taken to recover overdue debts. In addition, the Group performs impairment assessment under ECL model upon application of HKFRS 9 on trade balances based on provision matrix.

Other receivables, amount due from associates/joint ventures/related companies and bank balances

In order to minimise the credit risk, the Group performs impairment assessment under ECL model upon application of HKFRS 9 on other receivables, amounts due from associates/joint ventures/related companies individually. Other monitoring procedures are in place to ensure that follow-up action is taken to recover overdue debts.

The credit risks on bank balances are limited because the counterparties are reputable international and PRC banks and other financial institutions with high credit ratings assigned by international credit-rating agencies regulated by the PRC government.

Other than concentration of credit risk on liquid funds which are deposited with several banks with high credit ratings, the Group does not have any other significant concentration of credit risk.

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Credit risk and impairment assessment (continued)

The tables below detail the credit risk exposures of the Group's financial assets, which are subject to ECL assessment:

	Notes	External credit rating	Internal credit rating	12-month or lifetime ECL	Gross carrying amount 2019 RMB million	2018 RMB million
Financial assets at amortised cost						
Amounts due from associates*	29	N/A	(note a)	12-month ECL	**455**	536
				Lifetime ECL (not credit impaired)	**483**	355
					938	891
Amounts due from joint ventures*	30	N/A	(note a)	12-month ECL	**427**	1,155
				Lifetime ECL (not credit impaired)	**662**	465
					1,089	1,620
Amounts due from related companies*	31	N/A	(note a)	12-month ECL	**4**	16
				Lifetime ECL (not credit impaired)	**164**	219
					168	235
Restricted bank deposits	35	AA	N/A	12-month ECL	**1,012**	701
Bank balances	35	AA+	N/A	12-month ECL	**7,373**	7,923
Other receivables	24	N/A	(note a)	12-month ECL	**472**	339
Loan receivables	24	N/A	(note a)	12-month ECL	**191**	379
Trade receivables	24	N/A	(note b)	Lifetime ECL (provision matrix)	**2,456**	2,680
				Lifetime ECL (not credit impaired)	**30**	143
				Credit-impaired	**109**	45
					2,595	2,868
Bills receivable	24	N/A	(note a)	12-month ECL	**1,413**	1,786
Contract assets	28	N/A	(note b)	Lifetime ECL (provision matrix)	**785**	636
				Credit-impaired	**1**	2
					786	638

* The gross carrying amounts disclosed above include both trade nature receivables and non-trade nature receivables. All trade nature receivables are applying lifetime ECL.

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Credit risk and impairment assessment (continued)

Notes:

a. For the purposes of internal credit risk management, the Group uses past due information to assess whether credit risk has increased significantly since initial recognition.

2019

	Past due RMB million	Not past due/ No fixed terms of repayment RMB million	Total RMB million
Amounts due from associates	–	938	938
Amounts due from joint ventures	–	1,089	1,089
Amounts due from related companies	–	168	168
Bills receivable	–	1,413	1,413
Other receivables	–	472	472
Loan receivables	–	191	191

2018

	Past due RMB million	Not past due/ No fixed terms of repayment RMB million	Total RMB million
Amounts due from associates	–	891	891
Amounts due from joint ventures	–	1,620	1,620
Amounts due from related companies	–	235	235
Bills receivable	–	1,786	1,786
Other receivables	–	339	339
Loan receivables	–	379	379

b. For trade receivables and contract assets, the Group has applied the simplified approach in HKFRS 9 to measure the loss allowance at lifetime ECL. Except for debtors with significant outstanding balances, the Group determines the expected credit losses on these items by using a provision matrix, grouped by past due status.

As part of the Group's credit risk management, the Group uses debtors' aging to assess the impairment for its customers in relation to its operation because these customers consist of a large number of small customers with common risk characteristics that are representative of the customers' abilities to pay all amounts due in accordance with the contractual terms. The following table provides information about the exposure to credit risk for trade receivables and contract assets which are assessed based on provision matrix as at 31 December 2019 within lifetime ECL. Debtors of a subsidiary acquired during the year ended 31 December 2018 were assessed individually. A full provision was made for debtors that were credit-impaired.

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Credit risk and impairment assessment (continued)

Gross carrying amount

	2019		2018	
	Average loss rate	**Trade receivables and contract assets RMB million**	Average loss rate	Trade receivables and contract assets RMB million
0 to 3 months	**0.38%**	**2,344**	0.41%	2,349
4 to 6 months	**6.08%**	**188**	7.10%	262
7 to 9 months	**7.80%**	**283**	8.60%	315
10 to 12 months	**9.03%**	**98**	10.52%	81
1 to 2 years	**22.58%**	**273**	24.46%	199
2 to 3 years	**39.11%**	**55**	37.75%	110
		3,241		3,316

The estimated loss rates are estimated based on historical observed default rates over the expected life of the debtors and are adjusted for forward-looking information that is available without undue cost or effort. The grouping is regularly reviewed by management to ensure relevant information about specific debtors is updated.

As at 31 December 2019, the Group provided RMB105 million (2018: RMB130 million) and RMB28 million (2018: RMB24 million) impairment allowance for trade receivables and contract assets respectively, based on the provision matrix. Impairment allowance of RMB128 million (2018: RMB52 million) and RMB1 million (2018: RMB2 million) were made for trade receivables and contract assets respectively, based on debtors of the subsidiary acquired in prior year and debtors that were credit impaired.

The following table shows reconciliation of loss allowances that have been recognised for trade receivables, contract assets, bills receivables, other receivables, amounts due from associates, joint ventures, related companies.

	12-month ECL RMB million	**Lifetime ECL (not credit-impaired)** RMB million	**Lifetime ECL (credit-impaired)** RMB million	**Total** RMB million
As at 1 January 2018	28	50	200	278
Changes due to financial instruments recognised:				
– Transfer to credit-impaired	–	(3)	3	–
– Impairment losses recognised	39	65	51	155
– Impairment losses reversed	(28)	(48)	(15)	(91)
– Eliminated on disposal of subsidiaries	–	–	(65)	(65)
As at 31 December 2018	39	64	174	277
Changes due to financial instruments recognised:				
– Transfer to credit-impaired	(2)	(39)	41	–
– Impairment losses recognised	28	55	65	148
– Impairment losses reversed	(45)	(57)	(2)	(104)
As at 31 December 2019	20	23	278	321

The Group writes off a trade receivable when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, whichever occurs earlier.

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Liquidity risk management

To manage the liquidity risk, the Group reviews the level of cash and cash equivalents to ensure their adequacy to finance the Group's operations, capital expansion plans and mitigate the effects of fluctuation in cash flows. The Group also reviews the utilisation of borrowings and ensures the compliance of loan covenants.

The Group relies on various bonds and bank and other loans as a significant source of liquidity, detail of which are set out in Notes 41, 42, 43 and 44. Except for the unutilised issuance quota of the corporate bonds and green bonds amounting to RMB7,900 million by China Securities Regulatory Commission and National Development and Reform Commission, the Group has unutilised credit facilities of approximately RMB13,448 million as at 31 December 2019, which are subject to renewal within twelve months from the end of the reporting period as set out in Note 2.

The following table details the Group's remaining contractual maturity for its financial liabilities based on the agreed repayment terms. The table has been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows. To the extent that interest flows are carried at floating rate, the undiscounted amount is derived from interest rate existed at the end of the reporting period.

	Weighted average interest rate %	Repayable on demand or within one year RMB million	Within the second year RMB million	Within the third year RMB million	Within the fourth year RMB million	Within the fifth year RMB million	Over five years RMB million	Total undiscounted cash flow RMB million	Carrying amount at end of the reporting period RMB million
At 31 December 2019									
Non-derivative financial liabilities									
Trade and other payables		7,635	–	–	–	–	–	7,635	7,635
Amounts due to associates	0.93	190	–	–	–	–	–	190	189
Amounts due to joint ventures	0.23	786	735	–	–	–	–	1,521	1,520
Amounts due to related companies		1,060	–	–	–	–	–	1,060	1,060
Bank and other loans									
– fixed rate	3.03	7,256	5	103	–	–	–	7,364	7,277
– variable rate	3.59	410	2,223	104	61	48	539	3,385	3,066
Lease Liabilities	5.20	129	104	76	63	53	275	700	550
Corporate bonds	4.13	91	87	2,136	–	–	–	2,314	2,094
Senior notes	6.00	153	2,627	–	–	–	–	2,780	2,539
Unsecured bonds	3.25	136	136	4,322	–	–	–	4,594	4,169
Financial guarantee contracts		726	–	–	–	–	–	726	–
		18,572	5,917	6,741	124	101	814	32,269	30,099
Derivatives									
– inflow		(599)	(1,613)	(4,431)	(22)	–	–	(6,665)	
– outflow		669	1,631	4,343	36	–	–	6,679	

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Liquidity risk management (continued)

	Weighted average interest rate %	Repayable on demand or within one year RMB million	Within the second year RMB million	Within the third year RMB million	Within the fourth year RMB million	Within the fifth year RMB million	Over five years RMB million	Total undiscounted cash flow RMB million	Carrying amount at end of the reporting period RMB million
At 31 December 2018									
Non-derivative financial liabilities									
Trade and other payables		7,103	–	–	–	–	–	7,103	7,103
Amounts due to associates	0.35	351	–	–	–	–	–	351	351
Amounts due to joint ventures	4.50	1,739	46	1,016	–	–	–	2,801	2,663
Amounts due to related companies		793	–	–	–	–	–	793	793
Bank and other loans									
– fixed rate	3.98	6,768	102	–	–	–	–	6,870	6,775
– variable rate	4.68	2,092	167	1,600	64	67	386	4,376	3,947
Corporate bonds	3.55	2,589	–	–	–	–	–	2,589	2,497
Senior notes	6.00	151	151	2,584	–	–	–	2,886	2,491
Unsecured bonds	3.25	593	134	134	4,252	–	–	5,113	4,539
Financial guarantee contracts		203	–	–	–	–	–	203	–
		22,382	600	5,334	4,316	67	386	33,085	31,159
Derivatives									
– inflow		(719)	(159)	(487)	(4,252)	–	–	(5,617)	
– outflow		1,002	492	711	4,350	3	–	6,558	

The amounts included above for financial guarantee contracts are the maximum amounts the Group could be required to settle under the arrangement for the full guaranteed amount if that amount is claimed by the counterparty to the guarantee. Based on the expectations at the end of the reporting period, the Group considers that it is more likely than not that no amount will be payable under the arrangement. However, these estimates are subject to change depending on the probability of the counterparties claiming under the guarantee in case that the financial receivables held by the counterparty suffer credit losses.

The amounts included above for variable interest rate instruments for non-derivative financial liabilities is subject to change if changes in variable interest rates differ to those estimates of interest rates determined at the end of the reporting period.

The contractual expiry periods of financial guarantee contracts at the end of the reporting period are as follows:

	2019		2018	
	RMB million	**Expiry period**	RMB million	Expiry period
Guarantees issued to banks to secure loan facilities granted to joint ventures	**726**	**2025**	203	2025

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

d. Fair value measurement of financial instruments

(i) Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis

The Group measures its following financial instruments at fair value at the end of the reporting period on a recurring basis:

	Fair value as at 31 December		Fair value hierarchy	Valuation technique and key input
	2019 RMB million	2018 RMB million		
Financial assets				
Derivative financial instruments	**673**	231	Level 2	Discounted cash flow for swap Future cash flows are estimated based on forward commodity price and forward exchange rates at settlement date, contracted strike rate, cap rate and premium payment, discounted at the swap curves expected by various counterparties Black-Scholes Model for option Fair value estimated based on strike price, commodity price, time to expiration, volatility and risk- free interest rate
Listed equity securities, equity interest in Shanghai Utilities	**287**	310	Level 1	Fair values are derived from quoted bid prices in an active market
Unlisted wealth management products	**16**	49	Level 3	Discounted cash flow Future cash flows are estimated based on the recoverable amount expected, discounted at a rate that reflects the credit risk of the counterparty
1.13% equity interest in Sinopec Marketing	**4,170**	4,177	Level 3	Estimated based on the P/B ratio of comparable listed companies and a liquidity discount
Total return swap	**–**	463	Level 2	Fair value is with reference to the similar assets' quoted price in an active market.
Other unlisted equity securities – FVTPL	**384**	350	Level 3	Fair value is derived from price multiples of similar assets that have been traded in the market
Unlisted equity securities – FVTOCI	**123**	112	Level 3	Fair values are derived from the fair value of the underlying assets and liabilities held by the investee
Financial liabilities				
Derivative financial instruments	**746**	1,143	Level 2	Discounted cash flow for swap Future cash flows are estimated based on forward commodity price and forward exchange rates at settlement date, contracted strike rate, cap rate and premium payment, discounted at the swap curves expected by various counterparties Black-Scholes Model for option Fair value estimated based on strike price, commodity price, time to expiration, volatility and risk- free interest rate

53. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

d. Fair value measurement of financial instruments *(continued)*

(i) Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis (continued)

The Group's 1.13% equity interest in Sinopec Marketing which is classified as financial assets at FVTPL under Level 3 hierarchy amounted to RMB4,170 million as at 31 December 2019 under HKFRS 9. The significant unobservable input is the liquidity discount rate. The higher liquidity discount rate, the lower fair value of the financial assets at FVTPL will be. A 5% increase/decrease in the liquidity discount rate, holding all other variables constant, the fair value of the investments would decrease/increase by RMB26 million as at 31 December 2019.

(ii) Fair value of the Group's financial assets and financial liabilities that are not measured at fair value on a recurring basis

Except as detailed in the following table, the Directors consider that the carrying amounts of financial liabilities recorded at amortised cost in the consolidated statement of financial position approximate their fair values:

	2019		2018	
	Carrying amount RMB million	**Fair value RMB million**	Carrying amount RMB million	Fair value RMB million
Fixed-rate bank and other loans	**7,277**	**7,079**	6,775	6,599
Senior notes	**2,539**	**2,655**	2,491	2,622
Unsecured bonds	**4,169**	**4,216**	4,539	4,456
Corporate bonds	**2,094**	**2,105**	2,497	2,500

In the above table, other than the fair values of bank loans disclosed which are under the fair value hierarchy of Level 3, the rest of the fair values disclosed are under the fair value hierarchy of Level 2. The fair values of the senior notes and unsecured bonds are derived from the quoted prices in an over-the-counter market, and the fair values of corporate bonds are derived from the inactive quoted prices in the Shanghai Stock Exchange. The fair values of the rest of the financial liabilities at amortised cost are derived from discount cash flow technique by reference to the market interest rate of the loans with comparable maturity and credit risk of the respective group entities at the end of the reporting period.

54. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

The table below details changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be classified in the Group's consolidated statement of cash flows as cash flows from financing activities.

	Bank and other loans RMB million (Note 41)	**Lease liabilities RMB million**	**Corporate bonds RMB million (Note 42)**	**Unsecured bonds RMB million (Note 44)**	**Senior notes RMB million (Note 43)**	**Others RMB million (note)**	**Total RMB million**
At 1 January 2019	**10,722**	**–**	**2,497**	**4,539**	**2,491**	**876**	**21,125**
Initial application of HKFRS 16	**–**	**632**	**–**	**–**	**–**	**–**	**632**
Financing cash flows	**(661)**	**(101)**	**(407)**	**(459)**	**–**	**(1,691)**	**(3,319)**
Acquisition of subsidiaries	**215**	**–**	**–**	**–**	**–**	**–**	**215**
Foreign exchange translation	**67**	**–**	**–**	**83**	**42**	**–**	**192**
New leases entered	**–**	**19**	**–**	**–**	**–**	**–**	**19**
Dividends paid to shareholders	**–**	**–**	**–**	**–**	**–**	**1,176**	**1,176**
Interest expense	**–**	**–**	**4**	**6**	**6**	**861**	**877**
At 31 December 2019	**10,343**	**550**	**2,094**	**4,169**	**2,539**	**1,222**	**20,917**

	Bank and other loans RMB million (Note 41)	Convertible bonds RMB million	Corporate bonds RMB million (Note 42)	Unsecured bonds RMB million (Note 44)	Senior notes RMB million (Note 43)	Others RMB million (note)	Total RMB million
At 1 January 2018	2,260	3,635	5,490	4,316	2,366	1,705	19,772
Financing cash flows	7,852	(3,771)	(3,000)	–	–	(2,249)	(1,168)
Acquisition of subsidiaries	238	–	–	–	–	–	238
Fair value adjustments	–	249	–	–	–	–	249
Foreign exchange translation	372	–	–	216	119	–	707
Gain on repurchase and redemption of convertible bonds	–	(34)	–	–	–	–	(34)
Issue of shares on conversion of convertible bonds	–	(79)	–	–	–	–	(79)
Dividends paid to shareholders	–	–	–	–	–	952	952
Interest expense	–	–	7	7	6	468	488
At 31 December 2018	10,722	–	2,497	4,539	2,491	876	21,125

Note: The amounts include the interest payables, non-trade payables due to joint ventures, associates and related companies.

55. RELATED PARTY TRANSACTIONS

Apart from the related party balances as stated in Notes 29, 30 and 31 and the equity transactions as stated in Notes 47 and 48, the Group had the following transactions with certain related parties:

	2019 **RMB million**	2018 RMB million
Nature of transaction		
Associates:		
– Sales of gas to	**576**	482
– Sales of materials to	**284**	237
– Purchase of gas from	**282**	311
– Purchase of equipment from	**3**	–
– Loan interest received from	**24**	22
– Provision of gas transportation services to	**1**	–
– Provision of gas transportation services by	**28**	9
– Lease of vehicles to	**–**	1
– Deposit interest paid to	**2**	2
– Provision of supporting services to	**8**	2
– Provision of construction and installation services to	**32**	–
– Purchase of equity interest from	**52**	–
Joint ventures:		
– Sales of gas to	**1,546**	1,580
– Sales of materials to	**281**	220
– Purchase of gas from	**3,961**	3,308
– Provision of gas transportation services to	**388**	379
– Loan interest received from	**42**	60
– Loan interest paid to	**4**	36
– Provision of supporting services to	**21**	33
– Purchase of equipment from	**23**	6
– Deposit interest paid to	**13**	12
– Provision of proprietary services to	**–**	20
– Provision of construction services by	**23**	29
– Provision of supporting services by	**2**	2
– Lease of premises from	**–**	1
– Lease of vehicles to	**2**	2
– Provision of energy efficiency technology services to	**2**	–
– Provision of technology services by	**7**	–

55. RELATED PARTY TRANSACTIONS *(continued)*

	2019 RMB million	2018 RMB million
Companies controlled by Mr. Wang:		
Transactions exempt from shareholders' approval under Chapter 14A of the Listing Rules:		
– Provision of energy efficiency technology services by	–	188
– Purchase of equipment from	52	122
– Provision of construction services by	1,263	1,079
– Provision of information technology services by	139	279
– Purchase of LNG from	1,313	669
– Provision of LNG terminal usage services by	131	–
– Purchase of equity interest from (note)	100	–
Transactions fully exempt from shareholders' approval, annual review and all disclosure requirements under Chapter 14A of the Listing Rules:		
– Sales of gas, gasoline and diesel to	13	12
– Sales of materials to	43	42
– Provision of construction and installation services to	7	11
– Provision of property management services by	17	17
– Provision of property management services to	1	–
– Lease of premises to	4	3
– Lease of premises from	7	3
– Provision of supporting services by	51	56
– Provision of supporting services to	54	9
– Provision of outsourcing services by	55	44
– Provision of electronic business services by	4	1
– Provision of technology services to	52	42
– Provision of research and development services to	10	–
– Provision of energy efficiency technology services to	6	–

Note: During the current year, the Group completed the acquisition of the additional 4.5% equity interest in ENN Finance from a related company controlled by Mr. Wang. The consideration for the acquisition amounted to approximately RMB100 million.

The Company issued senior notes on 13 May 2011, unsecured bonds on 24 July 2017 and entered into a club loan agreement with various banks on 23 November 2018. The terms and conditions of these debts require Mr. Wang to retain certain percentage of shareholding over the Company, failing which the Company would be required to repay or repurchase all outstanding debts at predetermined prices.

Compensation of key management personnel

The remuneration of the Directors who are also the members of key management personnel during the years ended 31 December 2019 and 2018 was disclosed in Note 12.

Financial guarantee contracts

As at 31 December 2019, the guaranteed facilities amount utilised by the joint ventures were RMB726 million (2018: RMB203 million). In the opinion of the Directors, the fair values of the financial guarantee contracts of the Group issued during the year ended 31 December 2019 and 31 December 2018 were insignificant at the date of issue of the financial guarantee and no provision is necessary. In addition, the Directors do not consider it probable that a claim will be made against the Group under any of these guarantees.

As at 31 December 2019, a related company has provided guarantees to the Group to the extent of RMB140 million (2018: RMB1,344 million), the guaranteed facilities amount utilised by the Group were RMB120 million (2018: RMB1,326 million).

As at 31 December 2019, no personal guarantee was provided by Mr. Wang and Ms. Zhao Baoju, spouse of Mr Wang to the Group (2018: RMB620 million).

56. PARTICULAR OF PRINCIPAL SUBSIDIARIES

Name of Company	Place of incorporation/ establishment	Issued and fully paid share capital/ registered capital	Proportion of ownership interest/voting power held by the Group 2019	2018	Principal activities
ENN Gas Investment Group Limited ("ENN Gas")	British Virgin Island	USD1,000	**100.00%**	100.00%	Investment holding
北京新奧華鼎貿易有限公司 Beijing Xinao Huading Trading Company Limited#	PRC	USD23,800,000	**100.00%**	100.00%	Retail of gas pipelines, related materials and equipment
長沙新奧燃氣有限公司 Changsha Xinao Gas Company Limited*	PRC	RMB120,000,000	**55.00%**	55.00%	Investment in gas pipeline infrastructure and sales of piped gas
常州新奧燃氣發展有限公司 Changzhou Xinao Gas Development Company Limited*	PRC	USD600,000	**60.00%**	60.00%	Sales of piped gas
常州新奧燃氣工程有限公司 Changzhou Xinao Gas Engineering Company Limited*	PRC	USD5,000,000	**60.00%**	60.00%	Investment in gas pipeline infrastructure
滁州新奧燃氣有限公司 Chuzhou Xinao Gas Company Limited*	PRC	USD7,100,000	**90.00%**	90.00%	Sales of piped gas
泉州市燃氣有限公司 Quanzhou City Gas Company Limited ("Quanzhou City Gas")	PRC	RMB450,000,000	**60.00%**	60.00%	Investment in gas pipeline infrastructure and sales of piped gas
晉江新奧燃氣有限公司 Jinjiang Xinao Gas Company Limited	PRC	RMB60,000,000	**60.00%**	60.00%	Investment in gas pipeline infrastructure and sales of piped gas
洛陽新奧華油燃氣有限公司 Luoyang Xinao Huayou Gas Company Limited*	PRC	RMB160,000,000	**70.00%**	70.00%	Investment in gas pipeline infrastructure and sales of piped gas
石家莊新奧燃氣有限公司 Shijiazhuang Xinao Gas Company Limited ("Shijiazhuang Xinao")	PRC	RMB300,000,000	**60.00%**	60.00%	Investment in gas pipeline infrastructure and sales of piped gas
肇慶新奧燃氣有限公司 Zhaoqing Xinao Gas Company Limited#	PRC	RMB52,700,000	**100.00%**	100.00%	Investment in gas pipeline infrastructure and sales of piped gas
株洲新奧燃氣有限公司 Zhuzhou Xinao Gas Company Limited*	PRC	RMB135,000,000	**55.00%**	55.00%	Investment in gas pipeline infrastructure
湘潭新奧燃氣有限公司 Xiangtan Xinao Gas Company Limited*	PRC	RMB70,000,000	**85.00%**	85.00%	Investment in gas pipeline infrastructure
蚌埠新奧燃氣有限公司 Bengbu Xinao Gas Company Limited*	PRC	RMB110,000,000	**70.00%**	70.00%	Investment in gas pipeline infrastructure

56. PARTICULAR OF PRINCIPAL SUBSIDIARIES *(continued)*

Name of Company	Place of incorporation/ establishment	Issued and fully paid share capital/ registered capital	Proportion of ownership interest/voting power held by the Group 2019	2018	Principal activities
蚌埠新奧燃氣發展有限公司 Bengbu Xinao Gas Development Company Limited*	PRC	USD600,000	**70.00%**	70.00%	Sales of piped gas
葫蘆島新奧燃氣發展有限公司 Huludao Xinao Gas Development Company Limited*	PRC	USD1,200,000	**90.00%**	90.00%	Investment in gas pipeline infrastructure
青島新奧新城燃氣有限公司 Qingdao Xinao Xincheng Gas Company Limited*	PRC	USD839,000,000	**90.00%**	90.00%	Sales of piped gas
浙江新奧智能裝備貿易有限公司 Zhejiang Xinao Intelligent Equipment Trading Company Limited	PRC	RMB10,000,000	**100.00%**	100.00%	Retail of gas pipelines and intelligent equipments
新奧泛能網絡科技有限公司 ENN Ubiquitous Energy Network Technology Company Limited#	PRC	RMB103,000,000	**100.00%**	100.00%	Solutions and operating services of integrated energy
新奧能源物流有限公司 Xinao Energy Logistics Company Limited#	PRC	USD22,230,000	**100.00%**	100.00%	Transportation of oil products and gas
新奧能源貿易有限公司 Xinao Energy Sales Company Limited#	PRC	USD30,200,000	**100.00%**	100.00%	Wholesale and retail of LNG and CNG, piped gas facilities, gas equipment, appliances and others
新奧液化天然氣貿易有限公司 ENN LNG Trading Company Limited	Hong Kong	HK$1,000	**100.00%**	100.00%	Sourcing and sales of LNG
新奧財務有限責任公司 ENN Finance	PRC	RMB2,000,000,000	**100.00%**	95.50%	Provision of financial services
新奧燃氣發展有限公司 Xinao Gas Development Company Limited#	PRC	USD23,000,000	**100.00%**	100.00%	Sourcing of compressed pipeline gas and investment in gas pipeline infrastructure and sales of piped gas
新奧新能源工程技術有限公司 Xinao New Energy Engineering Technology Company Limited#	PRC	USD7,000,000	**100.00%**	100.00%	Investment in gas pipeline infrastructure
新奧(中國)燃氣投資有限公司 Xinao (China)#	PRC	USD231,778,124	**100.00%**	100.00%	Investment holding

* Sino-foreign equity joint venture

\# Wholly-owned foreign enterprise

56. PARTICULAR OF PRINCIPAL SUBSIDIARIES *(continued)*

All of the above subsidiaries, except for ENN Gas and Xinao (China), are indirectly held by the Company.

All of the above subsidiaries operate principally in the places of their incorporation establishment respectively, except that ENN Gas operates principally in Hong Kong. The above table lists the subsidiaries of the Company which, in the opinion of the Directors, principally affected the results or net assets of the Group. Giving the details of other subsidiaries would, in the opinion of the Directors, result in particulars of excessive length.

None of the subsidiaries issued any debt securities as at 31 December 2019 or at any time during the year except for Xinao (China) which has issued the following debt securities.

	2019 **RMB million**	2018 RMB million
Corporate bonds	**2,094**	2,497

The table below shows details of non-wholly owned subsidiaries of the Company that have material non-controlling interests:

Name of subsidiary	**Incorporation/ establishment/ registration and operation**	**Proportion ownership interest held by non-controlling interests**		**Profit allocated to non-controlling interests**		**Accumulated non-controlling interests**	
		2019 **%**	2018 %	**2019** **RMB million**	2018 RMB million	**2019** **RMB million**	2018 RMB million
Quanzhou City Gas*	PRC	**40**	40	**112**	96	**300**	278
Shijiazhuang Xinao*	PRC	**40**	40	**82**	78	**289**	259
Individually immaterial subsidiaries with non-controlling interest						**4,563**	3,632

* excluding non-controlling interests of Quanzhou City Gas's and Shijiazhuang Xinao's subsidiaries.

Summarised financial information in respect of each of the Company's subsidiaries that has material non-controlling interests is set out below. The summarised financial information below represents amounts before intragroup eliminations.

Quanzhou City Gas	**2019** **RMB million**	2018 RMB million
Non-current assets	**1,201**	1,062
Current assets	**611**	612
Current liabilities	**1,062**	977
Revenue	**4,560**	3,948
Profit and total comprehensive income for the year (note)	**279**	239
Dividends paid to non-controlling interests	**90**	81
Net cash inflow from operating activities	**267**	395
Net cash (outflow) inflow from investing activities	**(176)**	31
Net cash outflow from financing activities	**(158)**	(334)
Net cash (outflow) inflow	**(67)**	92

Note: Included in the amount for the year ended 31 December 2019 is dividends income from Quanzhou City Gas's subsidiaries and joint venture of RMB177 million (2018: RMB193 million).

56. PARTICULAR OF PRINCIPAL SUBSIDIARIES *(continued)*

Shijiazhuang Xinao	2019 RMB million	2018 RMB million
Non-current assets	**1,930**	1,716
Current assets	**655**	1,229
Non-current liabilities	**155**	123
Current liabilities	**1,706**	2,175
Revenue	**2,114**	2,189
Profit and total comprehensive income for the year	**206**	196
Dividends paid to non-controlling interests	**52**	47
Net cash inflow from operating activities	**476**	191
Net cash outflow from investing activities	**(167)**	(242)
Net cash outflow from financing activities	**(367)**	(7)
Net cash outflow	**(58)**	(58)

57. EVENT AFTER THE REPORTING PERIOD

The slump in international crude oil price in early March 2020 would enable the Group to benefit from lower procurement costs in accordance with the long-term LNG contracts, which would be partially mitigated by the negative effects on the Group's commodity derivative contracts. The Group will closely monitor the international crude oil market and perform detailed assessment instantly. Considering the unpredictability of crude oil market development and price trend, it is not practicable to provide a reasonable estimate of the effect on the Group's financial performance in the coming future.

58. STATEMENT OF FINANCIAL POSITION OF THE COMPANY

	2019 RMB million	2018 RMB million
Non-current Assets		
Investment in subsidiaries	**8,183**	7,303
Investment in an associate	**39**	39
Financial assets at FVTPL	**379**	242
Amounts due from subsidiaries	**4,315**	4,622
	12,916	12,206
Current Assets		
Financial assets at FVTPL	**–**	464
Amounts due from subsidiaries	**5,779**	5,940
Cash and cash equivalents	**76**	453
	5,855	6,857
Current Liabilities		
Other payables	**132**	295
Taxation payables	**238**	226
Amounts due to subsidiaries	**1,613**	1,463
Bank loans – due within one year	**4,281**	4,356
Unsecured bonds	**–**	443
Financial liabilities at FVTPL	**–**	63
	6,264	6,846
Net Current (Liabilities) Assets	**(409)**	11
Total Assets less Current Liabilities	**12,507**	12,217
Capital and Reserves		
Share capital	**116**	116
Reserves	**3,550**	4,073
Total Equity	**3,666**	4,189
Non-current Liabilities		
Bank loans – due after one year	**2,093**	1,441
Senior notes	**2,539**	2,491
Unsecured bonds	**4,169**	4,096
Deferred tax liabilities	**40**	–
	8,841	8,028
	12,507	12,217

58. STATEMENT OF FINANCIAL POSITION OF THE COMPANY *(continued)*

The statement of changes in equity is as follow:

	Share capital RMB million	Treasury stocks RMB million	Share premium RMB million	Share options reserve RMB million	Retained earnings RMB million	Total RMB million
At 1 January 2018	112	–	72	74	1,157	1,415
Profit and total comprehensive income for the year	–	–	–	–	1,176	1,176
Recognition of equity-settled share-based payment (Note 45)	–	–	–	19	–	19
Issue of shares on conversion of convertible bonds	–	–	79	–	–	79
Issue of ordinary shares on acquisition of subsidiaries (Note 47)	4	–	2,493	–	–	2,497
Issue of ordinary shares upon exercise of share options (Notes 40 & 45)	–	–	48	(15)	–	33
Share repurchase (Note 40)	–	–	(78)	–	–	(78)
Dividends appropriation (Note 14)	–	–	–	–	(952)	(952)
At 31 December 2018 and 1 January 2019	116	–	2,614	78	1,381	4,189
Profit and total comprehensive income for the year	–	–	–	–	678	678
Recognition of equity-settled share-based payment (Note 45)	–	–	–	74	–	74
Purchase of shares under Share Award Scheme	–	(151)	–	–	–	(151)
Issue of ordinary shares upon exercise of share options (Notes 40 & 45)	–	–	76	(24)	–	52
Dividends appropriation (Note 14)	–	–	–	–	(1,176)	(1,176)
At 31 December 2019	116	(151)	2,690	128	883	3,666

INDEPENDENT AUDITOR'S REPORT

Deloitte. 德勤

TO THE SHAREHOLDERS OF ENN ENERGY HOLDINGS LIMITED
(incorporated in the Cayman Islands with limited liability)

Opinion

We have audited the consolidated financial statements of ENN Energy Holdings Limited (the "Company") and its subsidiaries (collectively referred to as the "Group") set out on pages 59 to 172, which comprise the consolidated statement of financial position as at 31 December 2018, and the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2018, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

Basis for Opinion

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

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How our audit addressed the key audit matter
Recognition of intangible assets related to a significant acquisition of business	
The Group completed a significant acquisition to purchase the entire equity interests of Excellence Award Holding Company Limited and its subsidiaries (collectively referred to as ''EAH Group") (the "Acquisition") from a related company on 16 August 2018. The total consideration was approximately RMB2,502 million, representing issuance of 39,926,534 ordinary shares of the Company measured at closing market price at completion date of HK$71.35 per share. The Group accounted for this acquisition under the acquisition method of business combinations. Accordingly, the purchase price was allocated to the assets acquired and liabilities assumed based on their respective fair values, including technology intangible assets of RMB549 million. We identified the recognition of intangible assets related to the Acquisition as a key audit matter due to the significance of intangible assets to the consolidated financial statements and the significant estimation uncertainty. Management determined the fair value of intangible assets using excess earning method with the assistance of an independent professional valuer which requires an estimation of future results, a set of estimations and a determination of key inputs, including the profit margins, revenue growth rates and discount rates. Any changes to these inputs may have significant impact on the fair value of intangible assets recognised in the Acquisition. Details of disclosures are set out in Notes 5 and 48 to the consolidated financial statements.	Our procedures in relation to the recognition of intangible assets related to the Acquisition included: • Evaluating the independent professional valuer's competence, capabilities and objectivity and how the valuer's work was relied on by management; • Evaluating the valuation methodology and models and significant assumptions adopted related to the discount rate, and testing the mathematical accuracy with the assistance of internal valuation specialists; • Assessing the reasonableness of future operating cash flows with reference to the past performance and management's expectations for the market developments, including checking the accuracy of the underlying calculations; and • Challenging the profit margins, short-term and long-term growth rate assumed to the Group's historical performances or external market data where available.

Key Audit Matters *(continued)*

Key audit matter	How our audit addressed the key audit matter
Fair value measurement of commodity derivative contracts	
We identified the fair value measurement of commodity derivative contracts (Note 24 to the consolidated financial statements) as a key audit matter due to the significance of the changes in fair value to the consolidated financial statements and the significant judgements associated with the fair value measurement. The fair value measurement of commodity derivative contracts is complex and requires judgments in areas such as estimates of future price curves, market price volatility and counterparty's credit risk. Any changes to these estimates may have significant impact on the fair value.	Our procedures in relation to the fair value measurement of commodity derivative contracts included: • Testing the design and implementation of key controls relating to valuation of commodity derivative contracts and relevant accounting treatments; • Testing the completeness of commodity derivative contracts by arranging confirmations to the counterparties and inspecting the supporting documents on a sample basis; and • With the assistance of internal valuation specialists, evaluating the appropriateness of management's valuation methodology, challenging key inputs involving in determining the fair value of commodity derivative contracts, including the forward price curves used, the expected market variation and the counterparty's credit risk, and checking the calculation on a sample basis.

Other Information

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

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

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

Responsibilities of Directors and Those Charged with Governance for the Consolidated Financial Statements

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

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

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

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

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

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements *(continued)*

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

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in the independent auditor's report is Tsang Kai Tai.

Deloitte Touche Tohmatsu
Certified Public Accountants

Hong Kong
21 March 2019

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2018

	Notes	**2018 RMB million**	2017 RMB million
Revenue	6	**60,698**	48,269
Cost of sales		**(51,188)**	(39,930)
Gross profit		**9,510**	8,339
Other income	8	**949**	676
Other gains and losses	9	**(1,634)**	(895)
Distribution and selling expenses		**(790)**	(635)
Administrative expenses		**(2,673)**	(2,377)
Share of results of associates		**275**	129
Share of results of joint ventures		**601**	505
Finance costs	10	**(637)**	(552)
Profit before tax	11	**5,601**	5,190
Income tax expense	13	**(1,783)**	(1,517)
Profit for the year		**3,818**	3,673
Other comprehensive income (expense)			
Items that will not be reclassified to profit or loss:			
Gain on revaluation of properties arising from the transfer to investment properties		**6**	4
Fair value loss on equity instruments at fair value through other comprehensive income ("FVTOCI")		**(7)**	–
		(1)	4
Items that have been reclassified or may be reclassified subsequently to profit or loss:			
Exchange differences arising on translation of foreign operations		**–**	(88)
Fair value loss on available-for-sale ("AFS") financial assets		**–**	(46)
Release of exchange reserve to profit or loss upon disposal of subsidiaries		**(40)**	–
		(40)	(134)
Other comprehensive expense for the year		**(41)**	(130)
Total comprehensive income for the year		**3,777**	3,543
Profit for the year attributable to:			
Owners of the Company		**2,818**	2,802
Non-controlling interests		**1,000**	871
		3,818	3,673
Total comprehensive income for the year attributable to:			
Owners of the Company		**2,778**	2,672
Non-controlling interests		**999**	871
		3,777	3,543

		RMB	RMB
Earnings per share	15		
– Basic		**2.56**	2.59
– Diluted		**2.56**	2.59

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 31 December 2018

	Notes	2018 RMB million	2017 RMB million
Non-current Assets			
Property, plant and equipment	16	**31,073**	25,490
Prepaid lease payments	17	**1,401**	1,262
Investment properties	18	**265**	246
Goodwill	19	**2,248**	192
Intangible assets	20	**3,037**	1,681
Interests in associates	21	**3,049**	1,505
Interests in joint ventures	22	**3,620**	3,929
Other receivables	23	**145**	183
Financial assets at fair value through profit or loss ("FVTPL")	24	**4,845**	5
Equity instruments at FVTOCI	25	**112**	–
AFS financial assets	26	**–**	4,578
Amounts due from associates	29	**353**	278
Amounts due from joint ventures	30	**68**	674
Deferred tax assets	32	**1,159**	941
Deposits paid for investments	33	**190**	35
Deposits paid for acquisition of property, plant and equipment, land use rights and right of operation		**171**	104
Restricted bank deposits	36	**639**	486
		52,375	41,589
Current Assets			
Inventories	34	**1,331**	744
Trade and other receivables	23	**8,560**	6,068
Contract assets	28	**612**	–
Amounts due from customers for contract work	35	**–**	553
Prepaid lease payments	17	**39**	37
Financial assets at FVTPL	24	**735**	4
AFS financial assets	26	**–**	528
Amounts due from associates	29	**523**	367
Amounts due from joint ventures	30	**1,523**	943
Amounts due from related companies	31	**231**	112
Restricted bank deposits	36	**62**	241
Cash and cash equivalents	36	**7,923**	7,972
		21,539	17,569
Assets classified as held for sale		**–**	57
		21,539	17,626

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 31 December 2018

	Notes	2018 RMB million	2017 RMB million
Current Liabilities			
Trade and other payables	37	**7,103**	11,217
Contract liabilities	38	**10,490**	–
Deferred income	39	**25**	243
Amounts due to customers for contract work	35	**–**	2,134
Amounts due to associates	29	**351**	282
Amounts due to joint ventures	30	**1,693**	1,677
Amounts due to related companies	31	**793**	642
Taxation payables		**782**	982
Bank and other loans – due within one year	41	**8,621**	1,737
Corporate bonds	42	**2,497**	2,996
Unsecured bonds	45	**443**	–
Convertible bonds at FVTPL	44	**–**	3,635
Financial guarantee liability		**–**	5
Financial liabilities at FVTPL	24	**219**	17
		33,017	25,567
Liabilities associated with assets classified as held for sale		**–**	38
		33,017	25,605
Net Current Liabilities		**(11,478)**	(7,979)
Total Assets less Current Liabilities		**40,897**	33,610
Capital and Reserves			
Share capital	40	**116**	112
Reserves		**21,269**	16,840
Equity attributable to owners of the Company		**21,385**	16,952
Non-controlling interests		**4,169**	3,265
Total Equity		**25,554**	20,217
Non-current Liabilities			
Contract liabilities	38	**3,240**	–
Deferred income	39	**520**	3,185
Amounts due to joint ventures	30	**970**	–
Bank and other loans – due after one year	41	**2,101**	523
Corporate bonds	42	**–**	2,494
Senior notes	43	**2,491**	2,366
Unsecured bonds	45	**4,096**	4,316
Financial liabilities at FVTPL	24	**924**	81
Deferred tax liabilities	32	**1,001**	428
		15,343	13,393
		40,897	33,610

The consolidated financial statements on pages 59 to 172 were approved and authorised for issue by the Board of Directors on 21 March 2019 and are signed on its behalf by:

Wang Yusuo
DIRECTOR

Wang Dongzhi
DIRECTOR

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2018

	Equity attributable to owners of the Company											
	Share capital RMB million (Note 40)	Share premium RMB million	Special reserve RMB million (note a)	Revaluation reserve RMB million	Share options reserve RMB million	Exchange reserve RMB million	Surplus reserve fund RMB million (note b)	Designated safety fund RMB million (note c)	Retained earnings RMB million	Total RMB million	Non-controlling interests RMB million	Total equity RMB million
At 1 January 2017	112	20	(94)	13	54	125	1,869	46	12,821	14,966	2,888	17,854
Profit for the year	–	–	–	–	–	–	–	–	2,802	2,802	871	3,673
Other comprehensive income for the year	–	–	–	(42)	–	(88)	–	–	–	(130)	–	(130)
Total comprehensive income for the year	–	–	–	(42)	–	(88)	–	–	2,802	2,672	871	3,543
Recognition of equity-settled share-based payment (Note 46)	–	–	–	–	34	–	–	–	–	34	–	34
Share repurchase (Note 40)	–	–	–	–	–	–	–	–	–	–	–	–
Issue of ordinary shares on exercise of share options (Note 46)	–	52	–	–	(14)	–	–	–	–	38	–	38
Acquisition of subsidiaries and businesses (Notes 48 & 49)	–	–	–	–	–	–	–	–	–	–	112	112
Acquisition of additional interests in subsidiaries	–	–	2	–	–	–	–	–	15	17	(17)	–
Capital contribution from non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	79	79
Dividends appropriation (Note 14)	–	–	–	–	–	–	–	–	(775)	(775)	–	(775)
Dividends paid to non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	(668)	(668)
Transfer to surplus reserve fund (note b)	–	–	–	–	–	–	213	–	(213)	–	–	–
Transfer to designated safety fund (note c)	–	–	–	–	–	–	–	13	(13)	–	–	–
At 31 December 2017	112	72	(92)	(29)	74	37	2,082	59	14,637	16,952	3,265	20,217
Adjustments (Note 3)	–	–	–	45	–	–	–	–	12	57	–	57
At 1 January 2018 (restated)	112	72	(92)	16	74	37	2,082	59	14,649	17,009	3,265	20,274
Profit for the year	–	–	–	–	–	–	–	–	2,818	2,818	1,000	3,818
Other comprehensive income for the year	–	–	–	–	–	(40)	–	–	–	(40)	(1)	(41)
Total comprehensive income for the year	–	–	–	–	–	(40)	–	–	2,818	2,778	999	3,777
Recognition of equity-settled share-based payment (Note 46)	–	–	–	–	19	–	–	–	–	19	–	19
Share repurchase (Note 40)	–	(78)	–	–	–	–	–	–	–	(78)	–	(78)
Issue of ordinary shares on exercise of share options (Notes 40 & 46)	–	48	–	–	(15)	–	–	–	–	33	–	33
Issue of ordinary shares on conversion of convertible bonds (Note 44)	–	79	–	–	–	–	–	–	–	79	–	79
Issue of ordinary shares on acquisition of subsidiaries (Note 48)	4	2,493	–	–	–	–	–	–	–	2,497	–	2,497
Acquisition of subsidiaries and businesses (Notes 48 & 49)	–	–	–	–	–	–	–	–	–	–	259	259
Disposal of subsidiaries (Note 50)	–	–	–	–	–	–	–	–	–	–	(51)	(51)
Disposal of equity instrument at FVTOCI	–	–	–	6	–	–	–	–	(6)	–	–	–
Capital contribution from non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	234	234
Dividends appropriation (Note 14)	–	–	–	–	–	–	–	–	(952)	(952)	–	(952)
Dividends paid to non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	(537)	(537)
Transfer to surplus reserve fund (note b)	–	–	–	–	–	–	332	–	(332)	–	–	–
Transfer to designated safety fund (note c)	–	–	–	–	–	–	–	1	(1)	–	–	–
At 31 December 2018	116	2,614	(92)	22	78	(3)	2,414	60	16,176	21,385	4,169	25,554

Notes:

a. The balance represents the difference between the fair values of consideration paid and the carrying values of net assets attributable to the additional interests of subsidiaries acquired or disposal of with no change in control.

b. In accordance with the People's Republic of China ("PRC") regulations, the surplus reserve fund retained by subsidiaries in the PRC is non-distributable.

c. Pursuant to relevant PRC regulation, the Group is required to transfer 1.5% on revenue generated from transportation of gas or other dangerous chemical into a designated fund. The fund will be used for installation and repair and maintenance of safety facilities. The movement during the year represents the difference between the amount provided based on the relevant PRC regulation and the amount utilised during the year.

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2018

	Notes	2018 RMB million	2017 RMB million
OPERATING ACTIVITIES			
Profit before tax		**5,601**	5,190
Adjustments for:			
Share of results of associates		**(275)**	(129)
Share of results of joint ventures		**(601)**	(505)
Exchange differences		**635**	(358)
Fair value loss on convertible bonds at FVTPL		**249**	278
Fair value loss on financial assets/liabilities at FVTPL		**797**	314
Impairment losses on property, plant and equipment		**–**	478
Impairment losses on receivables, net		**64**	145
Loss on disposal of property, plant and equipment		**47**	55
Gain on disposal of prepaid lease payments		**(13)**	(14)
Loss on disposal of subsidiaries	50	**2**	13
Gain on remeasurement of interest on joint ventures previously held		**(111)**	–
Gain on dilution of equity interests in joint ventures		**(72)**	–
Gain on disposal of joint ventures		**(16)**	–
Gain on disposal of an associate		**–**	(18)
Gain on disposal of an AFS investment		**–**	(1)
(Gain) loss on repurchase and redemption of convertible bonds at FVTPL	44	**(34)**	4
Dividends income from an AFS investment		**–**	(148)
Dividends income from financial assets at FVTPL		**(352)**	–
Dividends income from equity instruments at FVTOCI		**(2)**	–
Increase in fair value of investment properties		**(9)**	(10)
Share-based payment expenses		**19**	34
Depreciation of property, plant and equipment		**1,144**	1,016
Amortisation of intangible assets		**142**	102
Release of prepaid lease payments		**43**	38
Financial guarantee income		**(5)**	(17)
Interest income on bank deposits and loan receivables		**(162)**	(222)
Finance costs		**637**	552
		7,728	6,797
Movements in working capital:			
Increase in inventories		**(404)**	(220)
Increase in trade and other receivables		**(1,724)**	(2,139)
Increase in amounts due from customers for contract work		**–**	(250)
Decrease in contract assets		**65**	–
Increase in contract liabilities		**1,877**	–
Increase in amounts due from associates		**(130)**	(110)
Increase in amounts due from joint ventures		**(110)**	(178)
Decrease (increase) in amounts due from related companies		**246**	(18)
Increase in trade and other payables		**956**	2,697
Decrease in amounts due to customers for contract work		**–**	(15)
Increase in amounts due to joint ventures		**1,680**	223
Increase (decrease) in amounts due to associates		**161**	(19)
Increase in deferred income		**207**	594
(Decrease) increase in amounts due to related companies		**(306)**	202
Cash generated from operations		**10,246**	7,564
PRC enterprise income tax paid		**(1,952)**	(1,471)
Net cash generated from operating activities		**8,294**	6,093

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2018

	Notes	2018 RMB million	2017 RMB million
INVESTING ACTIVITIES			
Dividends received from joint ventures		**463**	545
Dividends received from associates		**100**	43
Dividends received from an AFS investment		**–**	148
Dividends received from financial assets at FVTPL		**352**	–
Dividends received from equity instruments at FVTOCI		**2**	–
Settlement of financial assets/liabilities at FVTPL		**(122)**	(55)
Option premium received		**106**	–
Interest received		**162**	222
Amounts advanced to banks and other financial institutions by ENN Finance Company Limited ("ENN Finance")		**–**	(1,250)
Amounts withdrawn from banks and other financial institutions by ENN Finance		**–**	1,250
Purchases of property, plant and equipment		**(5,918)**	(4,527)
Acquisition of intangible assets		**(73)**	(74)
Increase in prepaid lease payments		**(123)**	(88)
Proceeds from disposal of property, plant and equipment		**93**	8
Proceeds from disposal of prepaid lease payments		**39**	50
Purchases of wealth management products		**(22,118)**	(14,434)
Release of wealth management products		**22,859**	14,511
Deposits paid for investments		**(182)**	(27)
Deposits paid for prepaid lease payments		**(92)**	(11)
Deposits paid for acquisition of property, plant and equipment		**(46)**	(19)
Net cash outflow on acquisition of subsidiaries and businesses	48&49	**(488)**	(91)
Net cash inflow on disposal of subsidiaries	50	**43**	8
Proceeds from disposal of joint ventures		**79**	–
Proceed from disposal of an associate		**5**	–
Proceed from disposal of an AFS investment		**–**	11
Proceed from capital released from a joint venture		**61**	–
Purchase of an AFS equity investment		**–**	(52)
Purchases of financial assets at FVTPL		**(527)**	–
Purchases of equity instruments at FVTOCI		**(10)**	–
Investments in joint ventures		**(53)**	(186)
Investments in associates		**(1,121)**	(94)
Addition of restricted bank deposits		**(213)**	(3,419)
Release of restricted bank deposits		**254**	3,533
Amounts advanced to third parties		**(153)**	–
Amounts advanced to associates		**(293)**	(273)
Amounts repaid by associates		**177**	12
Amounts advanced to joint ventures		**(696)**	(308)
Amounts repaid by joint ventures		**804**	66
Amounts advanced to related companies		**(7)**	(33)
Amounts repaid by related companies		**34**	2
Net cash used in investing activities		**(6,602)**	(4,532)

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2018

	2018 RMB million	2017 RMB million
FINANCING ACTIVITIES		
Interest paid	**(748)**	(562)
Amounts advanced from banks and other financial institutions by ENN Finance	**11,660**	800
Amounts repaid to banks and other financial institutions by ENN Finance	**(11,660)**	(800)
Repurchase of shares	**(78)**	–
Net proceeds from ordinary shares issued on exercise of share options	**33**	38
Proceeds from issuance of unsecured bonds	**–**	4,037
Proceeds used in repurchase and redemption of convertible bonds at FVTPL	**(3,771)**	(162)
Capital contribution from non-controlling shareholders	**234**	79
Dividends paid to non-controlling shareholders	**(537)**	(668)
Dividends paid to shareholders	**(952)**	(775)
New bank loans raised	**11,519**	5,797
Repayment of bank loans	**(3,667)**	(7,687)
Repayment of corporate bonds	**(3,000)**	–
Repayment of medium-term notes	**–**	(700)
Amounts advanced from associates	**173**	93
Amounts repaid to associates	**(265)**	(10)
Amounts advanced from joint ventures	**552**	140
Amounts repaid to joint ventures	**(1,246)**	(331)
Amounts advanced from related companies	**9**	9
Amounts repaid to related companies	**(30)**	(6)
Net cash used in financing activities	**(1,774)**	(708)
Net (decrease) increase in cash and cash equivalents	**(82)**	853
Effect of foreign exchange rate changes	**30**	(41)
Cash and cash equivalents at the beginning of the year	**7,975**	7,163
Cash and cash equivalents at the end of the year	**7,923**	7,975
Represented by:		
Cash and cash equivalents included in assets classified as held for sale	**–**	3
Cash and cash equivalents at the end of the year	**7,923**	7,972
	7,923	7,975

1. GENERAL

ENN Energy Holdings Limited (the "Company") is an exempted company incorporated in the Cayman Islands under the Companies Law and its shares are listed on the Main Board of The Stock Exchange of Hong Kong Limited (the "Stock Exchange"). The addresses of its registered office and principal place of business are disclosed in the section headed "Corporate Information" of the Company's Annual Report.

The consolidated financial statements of the Company and its subsidiaries (collectively referred to the "Group") are presented in Renminbi ("RMB"), which is the same as the functional currency of the Company.

The Company is an investment holding company. The activities of its principal subsidiaries are set out in Note 58.

2. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS

In preparing the consolidated financial statements, the directors of the Company (the "Directors") have given careful consideration of the Group's net current liabilities of approximately RMB11,478 million as at 31 December 2018. A wholly-owned subsidiary of the Company has been approved by China Securities Regulatory Commission on 10 December 2018 to issue corporate bonds amounting to RMB5,000 million and issued the 3-year corporate bonds of RMB500 million in January 2019 and RMB1,000 million in March 2019. Except for the unutilised issuance quota of the corporate bonds, the Group has unutilised credit facilities of approximately RMB8,779 million at the date of approval of the consolidated financial statements, of which approximately RMB5,574 million are subject to renewal within twelve months from the end of the reporting period. The Directors are therefore satisfied that the Group will be able to meet in full its financial obligations as they fall due in the foreseeable future. Accordingly, the consolidated financial statements for the year ended 31 December 2018 have been prepared on a going concern basis.

3. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs")

New and Amendments to HKFRSs that are mandatorily effective for the current year

The Group has applied the following new and amendments to HKFRSs issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") for the first time in the current year:

HKFRS 9	Financial Instruments
HKFRS 15	Revenue from Contracts with Customers and related Amendments
HK(IFRIC) – Int 22	Foreign Currency Transactions and Advance Consideration
Amendments to HKFRS 2	Classification and Measurement of Share-based Payment Transactions
Amendments to HKFRS 4	Applying HKFRS 9 Financial Instruments with HKFRS 4 Insurance Contracts
Amendments to HKAS 28	As part of the Annual Improvements to HKFRSs 2014–2016 Cycle
Amendments to HKAS 40	Transfers of Investment Property

Except as described below, the application of the new and amendments to HKFRSs in the current year has had no material impact on the Group's financial performance and positions for the current and prior years and/or on the disclosures set out in these consolidated financial statements.

3.1 HKFRS 15 Revenue from Contracts with Customers

The Group has applied HKFRS 15 for the first time in the current year. HKFRS 15 superseded HKAS 18 "Revenue", HKAS 11 "Construction Contracts" and the related interpretations.

The Group has applied HKFRS 15 retrospectively with the cumulative effect of initially applying this standard recognised at the date of initial application, 1 January 2018. Any difference at the date of initial application is recognised in the opening retained earnings and comparative information has not been restated. Furthermore, in accordance with the transition provision in HKFRS 15, the Group has elected to apply the standard retrospectively only to contracts that are not completed at 1 January 2018. Accordingly, certain comparative information may not be comparable as comparative information was prepared under HKAS 18 "Revenue" and HKAS 11 "Construction Contracts" and the related interpretations.

3. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and Amendments to HKFRSs that are mandatorily effective for the current year *(continued)*

3.1 HKFRS 15 Revenue from Contracts with Customers (continued)

The accounting policies in relation to application of HKFRS 15 are disclosed in Note 4.

The Group recognises revenue from the following major sources which arise from contracts with customers:

1) Sales of goods

The Group sells multi-energy products, such as natural gas, liquefied natural gas ("LNG"), compressed natural gas ("CNG"), heating, cooling, steam and integrated energy appliances to customers.

2) Construction

The Group provides construction and installation services under construction contracts with its customers.

The following adjustments were made to the amounts recognised in the consolidated statement of financial position at 1 January 2018. Line items that were not affected by the changes have not been included.

	Notes	Carrying amounts previously reported at 31 December 2017 RMB million	Reclassification RMB million	Carrying amounts under HKFRS 15 at 1 January 2018* RMB million
Current Assets				
Contract assets	a & c	–	683	683
Amounts due from customers for contract work	a	553	(553)	–
Trade and other receivables	c	6,068	(130)	5,938
Current Liabilities				
Contract liabilities	a, b & d	–	8,931	8,931
Amounts due to customers for contract work	a	2,134	(2,134)	–
Trade and other payables	d	11,217	(6,569)	4,648
Deferred income	b	243	(228)	15
Non-current Liabilities				
Contract liabilities	b	–	2,867	2,867
Deferred income	b	3,185	(2,867)	318

* The amounts in this column are before the adjustments from the application of HKFRS 9.

3. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and Amendments to HKFRSs that are mandatorily effective for the current year *(continued)*

3.1 HKFRS 15 Revenue from Contracts with Customers (continued)

Notes:

a. For construction and installation contracts, the Group continues to recognise revenue over time and apply output method in estimating the performance obligations satisfied up to date of initial application of HKFRS 15. Amounts due from/to customers for contract work of RMB553 million and RMB2,134 million were reclassified to contract assets and contract liabilities respectively.

b. At the date of initial application, included in the deferred income was RMB3,095 million which represents connection fees and subsidies received from certain customers for the construction of main gas pipelines and related to maintaining the ongoing deliverability to supply gas at the discretion of the customers, and hence such balance was reclassified to contract liabilities.

c. At the date of initial application, unbilled revenue of RMB130 million arising from construction and installation contracts are conditional on the confirmation of acceptance by customers on construction service, and hence such balance was reclassified from trade and other receivables to contract assets.

d. At the date of initial application, considerations received from customers of RMB6,569 million in respect of the sale of goods or the construction and installation contracts previously included in trade and other payables were reclassified to contract liabilities.

The following tables summarise the impacts of applying HKFRS 15 on the Group's consolidated statement of financial position as at 31 December 2018 and its consolidated statement of profit or loss and other comprehensive income for the current year for each of the line items affected. Line items that were not affected by the changes have not been included.

Impact on the consolidated statement of financial position

	As reported RMB million	**Adjustments** RMB million	**Amounts without application of HKFRS 15** RMB million
Current Assets			
Contract assets	612	(612)	–
Amounts due from customers for contract work	–	612	612
Current Liabilities			
Contract liabilities	10,490	(10,490)	–
Amounts due to customers for contract work	–	2,711	2,711
Trade and other payables	7,103	7,500	14,603
Deferred income	25	279	304
Non-current Liabilities			
Contract liabilities	3,240	(3,240)	–
Deferred income	520	3,240	3,760

3. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and Amendments to HKFRSs that are mandatorily effective for the current year *(continued)*

3.1 HKFRS 15 Revenue from Contracts with Customers (continued)

Impact on the consolidated statement of profit or loss and other comprehensive income

	Note	**As reported** RMB million	**Adjustments** RMB million	**Amounts without application of HKFRS 15** RMB million
Revenue	a	60,698	3,287	63,985
Cost of sales		51,188	3,287	54,475

Note:

a. Under HKAS 18, the Group was considered as a principal due to its significant exposure to credit risk of customers. Therefore, the Group recognised sales of material on gross basis. Upon application of HKFRS 15, the Group is considered as an agent as the Group did not obtain the control over the goods before passing on to customers. Its performance obligation is to arrange for the provision of material by another party. The adoption of HKFRS15 resulted in a reduction of revenue by RMB3,287 million for the year ended 31 December 2018.

Impact on the consolidated statement of statement of cash flows

	As reported RMB million	**Adjustments** RMB million	**Amounts without application of HKFRS 15** RMB million
Increase in trade and other receivables	(1,724)	124	(1,600)
Decrease in contract assets	65	(65)	–
Increase in amounts due from customers for contract work	–	(59)	(59)
Decrease in amounts due to customers for contract work	–	577	577
Increase in trade and other payables	956	871	1,827
Increase in contract liabilities	1,877	(1,877)	–
Increase in deferred income	207	429	636

3.2 HKFRS 9 Financial Instruments

In the current year, the Group has applied HKFRS 9 "Financial Instruments", and the related consequential amendments to other HKFRSs. HKFRS 9 introduces new requirements for 1) the classification and measurement of financial assets and financial liabilities, 2) expected credit losses ("ECL") for financial assets and 3) general hedge accounting.

The Group has applied HKFRS 9 in accordance with the transition provisions set out in HKFRS 9, i.e. applied the classification and measurement requirements (including impairment under ECL model) retrospectively to instruments that have not been derecognised as at 1 January 2018 (date of initial application) and has not applied the requirements to instruments that have already been derecognised as at 1 January 2018. The difference between carrying amounts as at 31 December 2017 and the carrying amounts as at 1 January 2018 are recognised in the opening retained earnings and other components of equity, without restating comparative information.

Accordingly, certain comparative information may not be comparable as comparative information was prepared under HKAS 39 "Financial Instruments: Recognition and Measurement".

The accounting policies in relation to application of HKFRS 9 are disclosed in Note 4.

The table below illustrates the classification and measurement of financial assets and financial liabilities and other items subject to ECL under HKFRS 9 and HKAS 39 at the date of initial application, 1 January 2018.

3. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and Amendments to HKFRSs that are mandatorily effective for the current year *(continued)*

3.2 HKFRS 9 Financial Instruments (continued)

	Notes	AFS financial assets RMB million	Financial assets at FVTPL required by HKAS 39/ HKFRS 9 RMB million	Equity instruments at FVTOCI RMB million	Receivables* RMB million	Contract assets RMB million	Revaluation reserve RMB million	Retained earnings RMB million
Closing balance at 31 December 2017								
– HKAS 39		5,106	9	–	8,625	–	29	(14,637)
Effect arising from initial application of HKFRS 15		–	–	–	(130)	683	–	–
Effect arising from initial application of HKFRS 9:								
Reclassification								
From AFS financial assets	a	(5,106)	4,998	108	–	–	(44)	44
From trade and other receivables	b	–	275	–	(275)	–	–	–
Remeasurement								
Impairment under ECL model	c	–	–	–	(2)	(1)	–	3
From cost less impairment to fair value	a	–	59	1	–	–	(1)	(59)
Opening balance at 1 January 2018								
– HKFRS 9		–	5,341	109	8,218	682	(16)	(14,649)

* The amounts in this column included trade and other receivables and amounts due from joint ventures, associates and related companies.

Summary of effects arising from initial application of HKFRS 9

(a) Reclassification from AFS financial assets

From AFS financial assets to FVTPL

At the date of initial application of HKFRS 9, the Group's equity investments of RMB4,998 million were reclassified from AFS financial assets to financial assets at FVTPL. The fair value gains of RMB59 million relating to those equity investments previously carried at cost less impairment were adjusted to financial assets at FVTPL and retained earnings as at 1 January 2018. The fair value losses of RMB44 million relating to those investments previously carried at fair value were transferred from revaluation reserve to retained earnings as at 1 January 2018.

From AFS financial assets to FVTOCI

Except for the equity investments reclassified as financial assets at FVTPL, the Group elected to present in other comprehensive income ("OCI") the fair value changes of all other equity investments previously classified as AFS financial assets, of RMB108 million relating to unquoted equity investments previously measured at cost less impairment under HKAS 39. These investments are not held for trading and not expected to be sold in the foreseeable future. At the date of initial application of HKFRS 9, RMB108 million were reclassified from AFS financial assets to equity instruments at FVTOCI. The fair value gains of RMB1 million relating to those unquoted equity investments previously carried at cost less impairment were adjusted to revaluation reserve as at 1 January 2018.

3. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and Amendments to HKFRSs that are mandatorily effective for the current year *(continued)*

3.2 HKFRS 9 Financial Instruments (continued)

Summary of effects arising from initial application of HKFRS 9 *(continued)*

(b) Reclassification from trade and other receivables

From trade and other receivables to FVTPL

At the date of initial application of HKFRS 9, The Group's investments in wealth management products of RMB275 million were reclassified from other receivables to financial assets at FVTPL because their cash flows do not represent solely payments of principal and interest on the principal amount outstanding.

(c) Impairment under ECL model

The Group applies the simplified approach under HKFRS 9 to measure ECL which uses a lifetime ECL for all contract assets, trade receivables and amounts due from joint ventures, associates and related companies arising from contracts with customers. To measure the ECL, contract assets, trade receivables and amounts due from joint ventures, associates and related companies arising from contracts with customers have been grouped based on shared credit risk characteristic. The contract assets relate to unbilled work in progress and have substantially the same risk characteristic as the trade receivables for the same types of contracts. The Group has therefore concluded that the expected loss rates for the trade receivables are a reasonable approximation of the expected loss rates for the contract assets.

Loss allowances for other financial assets at amortised cost including restricted bank deposits, bank balances, loan receivables, other receivables, bills receivable and non-trade nature of amounts due from joint ventures, associates and related companies are measured on 12-month ECL ("12m ECL") basis and there had been no significant increase in credit risk since initial recognition.

As at 1 January 2018, the additional credit loss allowance of RMB3 million has been recognised in retained earnings.

All loss allowances of financial assets at amortised cost as at 31 December 2017 is reconciled to the opening loss allowances as at 1 January 2018 as follows:

	Contract assets RMB million	**Receivables** RMB million
At 31 December 2017 – HKAS 39	–	275
Amounts remeasured through opening retained earnings	1	2
At 1 January 2018 – HKFRS 9	1	277

3. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and Amendments to HKFRSs that are mandatorily effective for the current year *(continued)*

3.3 Impacts on opening consolidated statement of financial position arising from the application of HKFRS 15 and HKFRS 9

As a result of the changes in the Group's accounting policies above, the opening consolidated statement of financial position had to be restated. The following table show the adjustments recognised for each of the line items affected. Line items that were not affected by the changes have not been included.

	At 31 December 2017 (audited) RMB million	HKFRS 15 RMB million	HKFRS 9 RMB million	At 1 January 2018 (restated) RMB million
Non-current Assets				
AFS financial assets	4,578	–	(4,578)	–
Financial assets at FVTPL	5	–	4,529	4,534
Equity instruments at FVTOCI	–	–	109	109
Amounts due from associates	278	–	(4)	274
Amounts due from joint ventures	674	–	(8)	666
Current Assets				
Contract assets	–	683	(1)	682
Amounts due from customers for contract work	553	(553)	–	–
Trade and other receivables	6,068	(130)	(240)	5,698
AFS financial assets	528	–	(528)	–
Financial assets at FVTPL	4	–	803	807
Amounts due from associates	367	–	(7)	360
Amounts due from joint ventures	943	–	(14)	929
Amounts due from related companies	112	–	(4)	108
Current Liabilities				
Contract liabilities	–	8,931	–	8,931
Amounts due to customers for contract work	2,134	(2,134)	–	–
Trade and other payables	11,217	(6,569)	–	4,648
Deferred income	243	(228)	–	15
Capital and Reserves				
Revaluation reserve	(29)	–	45	16
Retained earnings	14,637	–	12	14,649
Non-current Liabilities				
Contract liabilities	–	2,867	–	2,867
Deferred income	3,185	(2,867)	–	318

For the purposes of reporting cash flows from operating activities under indirect method for the year ended 31 December 2018, movements in working capital have been computed based on opening consolidated statement of financial position as at 1 January 2018 as disclosed above.

3. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and revised HKFRSs in issue but not yet effective

The Group has not early applied the following new and revised HKFRSs that have been issued but are not yet effective:

HKFRS 16	Leases[1]
HKFRS 17	Insurance Contracts[3]
HK(IFRIC) – Int 23	Uncertainty over Income Tax Treatments[1]
Amendments to HKFRS 3	Definition of a Business[4]
Amendments to HKFRS 9	Prepayment Features with Negative Compensation[1]
Amendments to HKFRS 10 and HKAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture[2]
Amendments to HKAS 1 and HKAS 8	Definition of Material[5]
Amendments to HKAS 19	Plan Amendment, Curtailment or Settlement[1]
Amendments to HKAS 28	Long-term Interests in Associates and Joint Ventures[1]
Amendments to HKFRSs	Annual Improvements to HKFRSs 2015–2017 Cycle[1]

1 Effective for annual periods beginning on or after 1 January 2019

2 Effective for annual periods beginning on or after a date to be determined

3 Effective for annual periods beginning on or after 1 January 2021

4 Effective for business combinations and asset acquisitions for which the acquisition date is on or after the beginning of the first annual period beginning on or after 1 January 2020

5 Effective for annual periods beginning on or after 1 January 2020

Except for the new and amendments to HKFRSs mentioned below, the Directors anticipate that the application of all other new and amendments to HKFRSs will have no material impact on the consolidated financial statements in the foreseeable future.

HKFRS 16 Leases

HKFRS 16 introduces a comprehensive model for the identification of lease arrangements and accounting treatments for both lessors and lessees. HKFRS 16 will supersede HKAS 17 "Leases" and the related interpretations when it becomes effective.

HKFRS 16 distinguishes lease and service contracts on the basis of whether an identified asset is controlled by a customer. In addition, HKFRS 16 requires sales and leaseback transactions to be determined based on the requirements of HKFRS 15 as to whether the transfer of the relevant asset should be accounted as a sale. HKFRS 16 also includes requirements relating to subleases and lease modifications.

Distinctions of operating leases and finance leases are removed for lessee accounting, and is replaced by a model where a right-of-use asset and a corresponding liability has to be recognised for all leases by lessees, except for short-term leases and leases of low value assets.

The right-of-use asset is initially measured at cost and subsequently measured at cost (subject to certain exceptions) less accumulated depreciation and impairment losses, adjusted for any remeasurement of the lease liability. The lease liability is initially measured at the present value of the lease payments that are not paid at that date. Subsequently, the lease liability is adjusted for interest and lease payments, as well as the impact of lease modifications amongst others. For the classification of cash flows, the Group currently presents upfront prepaid lease payments as investing cash flows in relation to leasehold lands for owned use and those classified as investment properties while other operating lease payments are presented as operating cash flows. Upon application of HKFRS 16, lease payments in relation to lease liability will be allocated into a principal and an interest portion which will both be presented as financing cash flows by the Group. Upfront prepaid lease payments will continue to be presented as investing or operating cash flows in accordance to the nature, as appropriate.

Under HKAS 17, the Group has already recognised an asset and a related finance lease liability for finance lease arrangement and prepaid lease payments for leasehold lands where the Group is a lessee. The application of HKFRS 16 may result in potential changes in classification of these assets depending on whether the Group presents right-of-use assets separately or within the same line item at which the corresponding underlying assets would be presented if they were owned.

3. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") *(continued)*

New and revised HKFRSs in issue but not yet effective *(continued)*

HKFRS 16 Leases (continued)

Other than certain requirements which are also applicable to lessor, HKFRS 16 substantially carries forward the lessor accounting requirements in HKAS 17, and continues to require a lessor to classify a lease either as an operating lease or a finance lease.

Furthermore, extensive disclosures are required by HKFRS 16.

As at 31 December 2018, the Group has non-cancellable operating lease commitments of RMB839 million as disclosed in Note 52. A preliminary assessment indicates that these arrangements will meet the definition of a lease. Upon application of HKFRS 16, the Group will recognise a right-of-use asset and a corresponding liability in respect of all these leases unless they qualify for short-term leases or leases of low-value assets.

The application of new requirements may result in changes in measurement, presentation and disclosure as indicated above. The Group intends to elect the practical expedient to apply HKFRS16 to contracts that were previously identified as leases applying HKAS 17 and HK(IFRIC)-Int 4 "Determining whether an Arrangement contains a Lease" and not apply this standard to contracts that were not previously identified as containing a lease applying HKAS 17 and HK(IFRIC)-Int 4. Therefore, the Group will not reassess whether the contracts are, or contain a lease which already existed prior to the date of initial application. Furthermore, the Group intends to elect the modified retrospective approach for the application of HKFRS 16 as lessee and will recognise the cumulative effect of initial application to opening retained profits without restating comparative information.

Amendments to HKFRS 3 Definition of a Business

The amendments clarify the definition of a business and provide additional guidance with the objective of assisting entities to determine whether a transaction should be accounted for as a business combination or an asset acquisition. Furthermore, an optional concentration test is introduced to permit a simplified assessment of whether an acquired set of activities and assets is not a business. The amendments will be mandatorily effective to the Group prospectively for acquisition transactions completed on or after 1 January 2020.

Amendments to HKAS 1 and HKAS 8 Definition of Material

The amendments provide refinements to the definition of material by including additional guidance and explanations in making materiality judgements. The amendments also align the definition across all HKFRSs and will be mandatorily effective for the Group's annual period beginning on 1 January 2020. The application of the amendments is not expected to have significant impact on the financial position and performance of the Group but may affect the presentation and disclosures in the consolidated financial statements.

4. SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements have been prepared in accordance with HKFRSs issued by the HKICPA. In addition, the consolidated financial statements include applicable disclosures required by the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules") and by the Hong Kong Companies Ordinance.

Basis of preparation

The consolidated financial statements have been prepared on the historical cost basis, except for certain properties and financial instruments, which are measured at fair values at the end of each reporting period, as explained in the accounting policies set out below.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of HKFRS 2 "Share-based Payment", leasing transactions that are within the scope of HKAS 17 "Leases", and measurements that have some similarities to fair value but are not fair value, such as net realisable value in HKAS 2 "Inventories" or value in use in HKAS 36 "Impairment of Assets".

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Basis of preparation *(continued)*

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

For financial instruments and investment properties which are transferred at fair value and a valuation technique that unobservable inputs are to be used to measure fair value in subsequent periods, the valuation technique is calibrated so that the results of the valuation technique equals the transaction price.

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

The principal accounting policies are set out below.

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries. Control is achieved where the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary.

Profit or loss and each item of other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

Non-controlling interests in subsidiaries are presented separately from the Group's equity therein, which represent present ownership interests entitling their holders to a proportionate share of net assets of the relevant subsidiaries upon liquidation.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Basis of consolidation *(continued)*

Changes in the Group's ownership interests in existing subsidiaries

Changes in the Group's interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's relevant components of equity and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries, including re-attribution of relevant reserves between the Group and the non-controlling interests according to the Group's and the non-controlling interests' proportionate interests.

Any difference between the amount by which the non-controlling interests are adjusted, and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, the assets and liabilities of that subsidiary and non-controlling interests (if any) are derecognised. A gain or loss is recognised in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities attributable to the owners of the Company. All amounts previously recognised in other comprehensive income in relation to that subsidiary are accounted for as if the Group had directly disposed of the related assets or liabilities of the subsidiary (i.e., reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable HKFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under HKAS 39 "Financial Instruments: Recognition and Measurement" or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

Business combinations

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognised in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value, except that:

(a) deferred tax assets or liabilities, and liabilities or assets related to employee benefit arrangements are recognised and measured in accordance with HKAS 12 "Income Taxes" and HKAS 19 "Employee Benefits" respectively;

(b) liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with HKFRS 2 "Share-based Payment" at the acquisition date; and

(c) assets (or disposal groups) that are classified as held for sale in accordance with HKFRS 5 "Non-current Assets Held for Sale and Discontinued Operations" are measured in accordance with that standard.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net amount of the identifiable assets acquired and the liabilities assumed as at acquisition date. If, after assessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the relevant subsidiary's net assets in the event of liquidation are initially measured at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets or at fair value.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date, and the resulting gain or loss, if any, is recognised in profit or loss or other comprehensive income, as appropriate. Amounts arising from interests in the acquire prior to the acquisition date that have been recognised in other comprehensive income and measured under HKFRS 9/HKAS 39 would be accounted for on the same basis as would be required if the Group had disposed directly of the previously held equity interest.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Business combinations *(continued)*

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted retrospectively during the measurement period (which cannot exceed one year from the acquisition date), and additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Acquisition of a subsidiary not constituting a business

When the Group acquires a group of assets and liabilities that do not constitute a business, the Group identifies and recognises the individual identifiable assets acquired and liabilities assumed by allocating the purchase price first to the financial assets and financial liabilities at the respective fair values, the remaining balance of the purchase price is then allocated to the other identifiable assets and liabilities on the basis of their relative fair values at the date of purchase. Such a transaction does not give rise to goodwill or bargain purchase gain.

Goodwill

Goodwill arising on an acquisition of a business is carried at cost less accumulated impairment losses, if any, and is presented separately in the consolidated statement of financial position.

For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units ("CGUs") (or groups of CGUs) that is expected to benefit from the synergies of the combination, which represent the lowest level at which the goodwill is monitored for internal management purposes.

A cash-generating unit (or group of CGUs) to which goodwill has been allocated are tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. For goodwill arising on acquisition in a reporting period, the CGU (or group of CGUs) to which goodwill has been allocated is tested for impairment before the end of that reporting period. If the recoverable amount of the CGU is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata basis based on the carrying amount of each asset in the unit (or group of CGUs). Any impairment loss for goodwill is recognised directly in profit or loss in the consolidated statement of profit or loss and other comprehensive income. An impairment loss recognised for goodwill is not reversed in subsequent periods.

On disposal of the relevant CGUs or any of the CGU within the group of CGUs, the attributable amount of goodwill is included in the determination of the amount of profit or loss on disposal. When the Group disposes of an operation within the CGU (or a CGU within a group of CGUs), the amount of goodwill disposed of is measured on the basis of the relative values of the operation (or the CGU) disposed of and the portion of the CGU (or the group of CGUs) retained.

The Group's policy for goodwill arising on the acquisition of an associate and joint venture is described below.

Investments in associates and joint ventures

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Investments in associates and joint ventures *(continued)*

The results and assets and liabilities of associates or joint ventures are incorporated in these consolidated financial statements using the equity method of accounting, except when the investment, or a portion thereof, is classified as held for sale, in which case it is or the portion so classified is accounted for in accordance with HKFRS 5. Any retained portion of an investment in an associate or a joint venture that has not been classified as held for sale shall be accounted for using the equity method. The financial statements of associates and joint ventures used for equity accounting purposes are prepared using uniform accounting policies as those of the Group for like transactions and events in similar circumstances. Under the equity method, an investment in an associate or a joint venture is initially recognised in the consolidated statement of financial position at cost and adjusted thereafter to recognise the Group's share of the profit or loss and other comprehensive income of the associate or joint venture. Changes in net assets of the associate or joint venture other than profit or loss and other comprehensive income are not accounted for unless such changes resulted in changes in ownership interest held by the Group. When the Group's share of losses of an associate or a joint venture exceeds the Group's interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate or joint venture), the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture.

An investment in an associate or a joint venture is accounted for using the equity method from the date on which the investee becomes an associate or a joint venture. On acquisition of the investment in an associate or a joint venture, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognised immediately in profit or loss in the period in which the investment is acquired.

The Group assesses whether there is an objective evidence that the interest in an associate or a joint venture may be impaired. When any objective evidence exists, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with HKAS 36 "Impairment of Assets" as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs of disposal) with its carrying amount. Any impairment loss recognised forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognised in accordance with HKAS 36 to the extent that the recoverable amount of the investment subsequently increases.

When the Group ceases to have significant influence over an associate or joint control over a joint venture, it is accounted for as a disposal of the entire interest in the investee with a resulting gain or loss being recognised in profit or loss. When the Group retains an interest in the former associate or joint venture and the retained interest is a financial asset within the scope of HKFRS 9/HKAS 39, the Group measures the retained interest at fair value at that date and the fair value is regarded as its fair value on initial recognition. The difference between the carrying amount of the associate or joint venture and the fair value of any retained interest and any proceeds from disposing of the relevant interest in the associate or joint venture is included in the determination of the gain or loss on disposal of the associate or joint venture. In addition, the Group accounts for all amounts previously recognised in other comprehensive income in relation to that associate or joint venture on the same basis as would be required if that associate or joint venture had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognised in other comprehensive income by that associate or joint venture would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to profit or loss (as a reclassification adjustment) upon disposal/partial disposal of the relevant associate or joint venture.

The Group continues to use the equity method when an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate. There is no remeasurement to fair value upon such changes in ownership interests.

When a group entity transacts with an associate or a joint venture of the Group, profits or losses resulting from the transactions with the associate or joint venture are recognised in the Group's consolidated financial statements only to the extent of interests in the associate or joint venture that are not related to the Group.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Non-current assets held for sale

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the asset (or disposal group) is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such asset (or disposal group) and its sale is highly probable. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

When the Group is committed to a sale plan involving loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Group will retain a non-controlling interest in the relevant subsidiary after sale.

When the Group is committed to a sale plan involving disposal of an investment, or a portion of an investment, in an associate or joint venture, the investment or the portion of the investment that will be disposed of is classified as held for sale when the criteria described above are met, and the Group discontinues the use of the equity method in relation to the portion that is classified as held for sale from the time when the investment (or a portion of the investment) is classified as held for sale.

Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell.

Revenue from contracts with customers (upon application of HKFRS 15 in accordance with transitions in Note 3)

Under HKFRS 15, the Group recognises revenue when (or as) a performance obligation is satisfied, i.e. when “control” of the goods or services underlying the particular performance obligation is transferred to the customer.

A performance obligation represents a good or service (or a bundle of goods or services) that is distinct or a series of distinct goods or services that are substantially the same.

Control is transferred over time and revenue is recognised over time by reference to the progress towards complete satisfaction of the relevant performance obligation if one of the following criteria is met:

- the customer simultaneously receives and consumes the benefits provided by the Group’s performance as the Group performs;
- the Group’s performance creates and enhances an asset that the customer controls as the Group performs; or
- the Group’s performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

Otherwise, revenue is recognised at a point in time when the customer obtains control of the distinct good or service.

A contract asset represents the Group’s right to consideration in exchange for goods or services that the Group has transferred to a customer that is not yet unconditional. It is assessed for impairment in accordance with HKFRS 9. In contrast, a receivable represents the Group’s unconditional right to consideration, i.e. only the passage of time is required before payment of that consideration is due.

A contract liability represents the Group’s obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer.

A contract asset and a contract liability relating to the same contract are accounted for and presented on a net basis.

Performance obligations for contracts with customers

The Group recognises revenue from the following sources:

1) Sales of piped gas

   The Group sells natural gas to customers through pipelines, including both residential households and commercial and industrial customers. Revenue recognised when the piped natural gas is transferred to and consumed by customers of which the volume of gas sold is measured by gas meters installed at customer sites.

2) Sales of integrated energy

   The Group supplies various energy products, such as gas, electricity, cooling, heating and steam. Revenue from sale of integrated energy is recognised when the energy is transferred to and consumed by the customers.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Revenue from contracts with customers (upon application of HKFRS 15 in accordance with transitions in Note 3) *(continued)*

Performance obligations for contracts with customers (continued)

3) Construction and installation

The Group provides construction and installation service under construction contracts with its customers. Such contracts are entered into for customers to gain access to the Group's gas pipelines or supply of integrated energy. Revenue is recognised over time based on the completion status of respective construction. The construction period is typically less than one year. The directors consider that this output method is an appropriate measure of the progress towards complete satisfaction of the performance obligation as stated in the contracts under HKFRS 15.

4) Wholesale of gas

The Group supplies bulk LNG to wholesale customers. Revenue is recognised when control of LNG has transferred, being when the LNG has been delivered to the customers' specific location.

5) Vehicle gas refuelling stations

The Group operates vehicle gas refuelling stations to refuel vehicles with LNG and CNG. Revenue is recognised when the refuelling is completed at the refuelling stations, being the time when LNG or CNG is transferred to customers.

6) Sales of gas appliances and material

The Group sells gas appliances such as cooking stoves, water boilers, range hoods and space heaters to residential customers. In addition, the Group also sells construction materials and other energy products to commercial and industrial customers. Revenue is recognised when control of goods has transferred, being at the point the customers purchase the goods.

Contracts with multiple performance obligations (including allocation of transaction price)

For contracts that contain more than one performance obligations, the Group allocates the transaction price to each performance obligation on a relative stand-alone selling price basis.

The stand-alone selling price of the distinct good or service underlying each performance obligation is determined at contract inception. It represents the price at which the Group would sell a promised good or service separately to a customer. If a stand-alone selling price is not directly observable, the Group estimates it using appropriate techniques such that the transaction price ultimately allocated to any performance obligation reflects the amount of consideration to which the Group expects to be entitled in exchange for transferring the promised goods or services to the customer.

Over time revenue recognition: measurement of progress towards complete satisfaction of a performance obligation

The progress towards complete satisfaction of a performance obligation is measured based on output method, which is to recognise revenue on the basis of direct measurement of the value of the goods or services transferred to the customer to date relative to the remaining goods or services promised under the contract, that best depict the Group's performance in transferring control of goods or services.

Existence of significant financing component

In determining the transaction price, the Group adjusts the promised amount of consideration for the effects of the time value of money if the timing of payments agreed (either explicitly or implicitly) provides the customer or the Group with a significant benefit of financing the transfer of goods or services to the customer. In those circumstances, the contract contains a significant financing component. A significant financing component may exist regardless of whether the promise of financing is explicitly stated in the contract or implied by the payment terms agreed to by the parties to the contract.

For advance payments received from customers before the transfer of the associated goods or services in which the Group adjusts for the promised amount of considerations for a significant financing component, the Group applies a discount rate that would be reflected in a separate financing transaction between the Group and the customer at contract inception. The relevant interest expenses during the period between the advanced payments were received and the transfer of the associated goods and services are accounted for on the same basis as other borrowing costs.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Revenue from contracts with customers (upon application of HKFRS 15 in accordance with transitions in Note 3) *(continued)*

Principal versus agent

When another party is involved in providing goods or services to a customer, the Group determines whether the nature of its promise is a performance obligation to provide the specified goods or services itself (i.e. the Group is a principal) or to arrange for those goods or services to be provided by the other party (i.e. the Group is an agent).

The Group is a principal if it controls the specified good or service before that good or service is transferred to a customer.

The Group is an agent if its performance obligation is to arrange for the provision of the specified good or service by another party. In this case, the Group does not control the specified good or service provided by another party before that good or service is transferred to the customer. When the Group acts as an agent, it recognises revenue in the amount of any fee or commission to which it expects to be entitled in exchange for arranging for the specified goods or services to be provided by the other party.

Revenue recognition (prior to 1 January 2018)

Revenue is measured at the fair value of the consideration received or receivable.

Revenue is recognised when the amount of revenue can be reliably measured; when it is probable that future economic benefits will flow to the Group and when specific criteria have been met for each of the Group's activities as described below.

Goods, services, interests and dividends

Revenue from the sale of goods is recognised when the goods are delivered and titles have passed.

The Group's accounting policy for the recognition of revenue from construction and installation contract is described in the accounting policy for construction and installation contract below.

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts the estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

Service income is recognised when services are provided.

Dividend income from investments is recognised when the shareholders' right to receive payment have been established.

When the Group receives cash from a customer for the construction or acquisition of an item of property, plant and equipment and the Group must then use the item of property, plant and equipment to provide the customer with ongoing access to a supply of gas and integrated energy including heating, electricity, steam and cooling, the item of property, plant and equipment is recognised in accordance with HKAS 16 "Property, Plant and Equipment" and the revenue (the credit resulting from the initial recognition of the item of property, plant and equipment) is recognised in accordance with HKAS 18 "Revenue". When an ongoing service is identified as part of the agreement, the period over which revenue is recognised for that service is generally determined by the terms of the agreement with the customers. When the agreement does not specify a period, the revenue is recognised over a period no longer than the useful life of the relevant property, plant and equipment used to provide the ongoing service.

Construction and installation contracts

Where the outcome of a construction and installation contract can be estimated reliably and the stage of contract completions at the end of the reporting period can be measured reliably, contract costs are charged to the consolidated statement of profit or loss and other comprehensive income by reference to the stage of completion of the contract activity at the end of the reporting period on the same basis as revenue from construction and installation contract is recognised.

Where the outcome of a construction and installation contract cannot be estimated reliably, contract revenue is recognised to the extent of contract costs incurred that it is probable will be recoverable. Contract costs are recognised as expenses in the period in which they are incurred.

When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Revenue recognition (prior to 1 January 2018) *(continued)*

Construction and installation contracts (continued)

Where contract costs incurred to date plus recognised profits less recognised losses exceed progress billings, the surplus is shown as amounts due from customers for contract work. For contracts where progress billings exceed contract costs incurred to date plus recognised profits less recognised losses, the surplus is shown as amounts due to customers for contract work. Amounts received before the related work is performed are included in the consolidated statement of financial position, as a liability, as advances received. Amounts billed for work performed but not yet paid by the customer are included in the consolidated statement of financial position under trade and other receivables.

When a construction and installation contract provides that the Group is committed to provide ongoing access to gas supply, revenue relating to the gas supply service is recognised on a straight-line basis over the shorter of the gas supply period and the useful lives of the related assets. The unearned portion of the construction and installation income received is stated as deferred income in the consolidated statement of financial position.

Leasing

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

The Group as lessor

Rental income from operating lease is recognised in profit or loss on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised on a straight-line basis over the lease term.

The Group as lessee

Operating lease payments, including the cost of acquiring land held under operating leases, are recognised as an expense on a straight-line basis over the term of the relevant lease. Contingent rentals arising under operating leases are recognised as expenses in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognised as a liability. The aggregate benefit of incentives is recognised as a reduction of rental expense on a straight-line basis.

Leasehold land and buildings

When the Group makes payments for a property interest which includes both leasehold land and building elements, the Group assesses the classification of each element as a finance or an operating lease separately based on the assessment as to whether substantially all the risks and rewards incidental to ownership of each element have been transferred to the Group, unless it is clear that both elements are operating leases, in which case the entire property is accounted as an operating lease. Specifically, the entire consideration (including any lump-sum upfront payments) are allocated between the land and the building elements in proportion to the relative fair values of the leasehold interests in the land element and building element at initial recognition.

To the extent the allocation of the relevant payments can be made reliably, interest in leasehold land that is accounted for as an operating lease is presented as "prepaid lease payments" in the consolidated statement of financial position and is amortised over the lease term on a straight-line basis, except for those classified as investment properties and accounted for using the fair value model.

Foreign currencies

In preparing the financial statements of each individual group entity, transactions in currencies other than the entity's functional currency (foreign currencies) are recognised at the rates of exchanges prevailing on the dates of the transactions. At the end of the reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing on the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items are recognised in profit or loss in the period in which they arise.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Foreign currencies *(continued)*

For the purposes of presenting consolidated financial statements, the assets and liabilities of the Group's foreign operations are translated into the presentation currency of the Group (i.e., RMB) using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during that period, in which case the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity under the heading of exchange reserve (attributed to non-controlling interests as appropriate). Such exchange differences are recognised in profit or loss in the period in which the foreign operation is disposed of.

Goodwill and fair value adjustments to identifiable assets acquired and liabilities assumed through acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the rate of exchange prevailing at the end of each reporting period. Exchange differences arising are recognised in other comprehensive income.

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in the profit or loss in the period in which they are incurred.

Government grants

Government grants are not recognised until there is a reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognised in profit or loss on a systematic basis over the periods in which the Group recognises as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognised as deferred income in the consolidated statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognised in profit or loss in the period in which they become receivable.

Retirement benefit scheme contribution

Payable to the Mandatory Provident Fund Scheme and the retirement funds scheme managed by local social security bureau in accordance with the government regulations of the PRC, are recognised as an expense when employees have rendered service entitling them to the contributions.

Short-term and other long-term employee benefit

Short-term employee benefits are recognised at the undiscounted amount of the benefits to be paid as and when employees rendered the service. All short-term employee benefits are recognised as expense unless another HKFRS requires or permits the inclusion of the benefit in the cost of an asset.

A liability is recognised for benefits accruing to employees in respect of wages and salaries, annual leave and sick leave after deducting any amount already paid.

Liabilities recognised in respect of other long-term employee benefits are measured at the present value of the estimated future cash outflows expected to be made by the Group in respect of services provided by employees up to the reporting date. Any changes in the liabilities' carrying amounts resulting from service cost, interest and remeasurements are recognised in profit or loss except to the extent that another HKFRS requires or permits their inclusions in the cost of an asset.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Share-based payment arrangements

Share options granted by the Company to employees (including directors) of the Group in an equity-settled share-based payment arrangement

Equity-settled share-based payments to employees and others providing similar services are measured at the fair value of the equity instruments at the grant date.

The fair value of the equity-settled share-based payments determined at the grant date without taking into consideration all non-market vesting conditions is expensed on a straight-line basis over the vesting period, based on the Group's estimate of equity instruments that will eventually vest, with a corresponding increase in equity (share options reserve). Vesting conditions, other than market condition, shall not be taken into account when estimating the fair value of the share options at the measurement date. Instead, vesting conditions, i.e., a specified service period with or without a performance target, shall be taken into account in estimating the number of equity instrument that will ultimately vest. At the end of each reporting period, the Group revises its estimate of the number of equity instruments expected to vest based on assessment of all relevant non-market vesting conditions. The impact of the revision of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to the share options reserve.

When share options are exercised, the amount previously recognised in share options reserve will be transferred to share capital and share premium. When the share options are forfeited after the vesting date or are still not exercised at the expiry date, the amount previously recognised in share options reserve will be transferred to retained earnings.

Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit/loss before tax as reported in the consolidated statement of profit or loss and other comprehensive income because of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax base used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary difference to the extent that is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such deferred tax assets and liabilities are not recognised if the temporary difference arises from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit. In addition, deferred tax liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill.

Deferred tax liabilities are recognised for taxable temporary difference associated with investments in subsidiaries and interests in associates and joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of the reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amounts of its assets and liabilities.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Taxation *(continued)*

For the purposes of measuring deferred tax for investment properties that are measured using the fair value model, the carrying amounts of such properties are presumed to be recovered entirely through sale, unless the presumption is rebutted. The presumption is rebutted when the investment property is depreciable and is held within a business model whose objective is to consume substantially all of the economic benefits embodied in the investment property over time, rather than through sale.

Current and deferred tax are recognised in profit or loss, except when it relates to items that are recognised in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognised in other comprehensive income or directly in equity respectively. Where current tax or deferred tax arises from initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

Property, plant and equipment

Property, plant and equipment included building and leasehold land (classified as finance lease) held for use in the production or supply of goods or services, or for administrative purposes (other than properties under construction as described below), are stated in the consolidated statement of financial position at cost or deemed cost for properties transferred from investment properties, less subsequent accumulated depreciation and accumulated impairment losses, if any.

Properties in the course of construction for production or supply of goods or services, or for administrative purposes are carried at cost, less any recognised impairment loss. Costs include professional fees and, for qualifying assets, borrowing costs capitalised in accordance with the Group's accounting policy. Such properties are classified to the appropriate categories of property, plant and equipment when completed and ready for intended use. Depreciation of these assets, on the same basis as other property assets, commences when the assets are ready for their intended use.

Depreciation is recognised so as to write off the costs or deemed cost of assets (other than properties under construction) less their residual values over their estimated useful lives, using the straight-line method. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

If an item of property, plant and equipment becomes an investment property because its use has changed as evidenced by end of owner-occupation, any difference between the carrying amount and the fair value of that item (including the relevant prepaid lease payments) at the date of transfer is recognised in other comprehensive income and accumulated in revaluation reserve. On the subsequent sale or retirement of the asset, the relevant revaluation reserve will be transferred directly to retained profits.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in the profit or loss.

Investment properties

Investment properties are properties held to earn rentals and/or for capital appreciation.

Investment properties are measured initially at cost, including any directly attributable expenditure. Subsequent to initial recognition, investment properties are measured at their fair values. Gains or losses arising from changes in the fair value of investment property are included in profit or loss for the period in which they arise.

An investment property is derecognised upon disposal or when the investment property is permanently withdrawn from use or no future economic benefits are expected from its disposals. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the profit or loss in the period in which the property is derecognised.

For a transfer from investment property to property, plant and equipment, the investment property is measured at the fair value at the date of transfer. Gain or losses arising from changes in the fair value of investment property are recognised in the profit or loss for the period in which the investment property is transferred. The fair value of the investment property will be recognised as the deemed cost of the property for subsequent accounting in accordance with the accounting policy of property, plant and equipment as set out above.

If an item of property, plant and equipment becomes an investment property because its use has changed as evidenced by end of owner-occupation, any difference the carrying amount and the fair value of that item (including the relevant prepaid lease payments) at the date of transfer is recognised in other comprehensive income and accumulated in revaluation reserve. On the subsequent sale or retirement of the asset, the relevant revaluation reserve will be transferred directly to retained earnings.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Intangible assets

Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are carried at costs less accumulated amortisation and any accumulated impairment losses (see the accounting policy in respect of impairment losses on tangible and intangible assets below). Amortisation is recognised on a straight-line basis over their estimated useful lives. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Internally-generated intangible assets – research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred. An internally-generated intangible asset arising from development or from the development phase of an internal project is recognised if, and only if, all of the following have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognised for internally-generated intangible asset is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no internally generated intangible asset can be recognised, development expenditure is charged to profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible asset is measured at cost less accumulated amortisation and accumulated impairment losses (if any), on the same basis as intangible assets that are acquired separately.

Intangible assets acquired in a business combination

Intangible assets that are acquired in a business combination are recognised separately from goodwill and are initially recognised at their fair value at the acquisition date (which is regarded as their cost).

Subsequent to initial recognition, intangible assets acquired in a business combination with finite useful lives are reported at costs less accumulated amortisation and any accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

Derecognition of intangible assets

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains and losses arising from derecognition of an intangible asset are measured at the difference between the net disposal proceeds and the carrying amount of the asset and are recognised in the profit or loss in the period when the asset is derecognised.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Impairment losses on tangible and intangible assets other than goodwill (see the accounting policy in respect of goodwill above)

At the end of the reporting period, the Group reviews the carrying amounts of its tangible and intangible assets with finite useful lives to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the relevant asset is estimated in order to determine the extent of the impairment loss, if any.

The recoverable amounts of tangible and intangible assets are estimated individually. When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the CGU to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual CGUs, or otherwise they are allocated to the smallest group of CGUs for which a reasonable and consistent allocation basis can be identified.

Intangible assets not yet available for use are tested for impairment at least annually, and whenever there is an indication that they may be impaired.

Recoverable amount is the higher of fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or a CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or a CGU) is reduced to its recoverable amount. In allocating the impairment loss, the impairment loss is allocated first to reduce the carrying amount of any goodwill (if applicable) and then to the other assets on a pro-rata basis based on the carrying amount of each asset in the unit. The carrying amount of an asset is not reduced below the highest of its fair value less costs of disposal (if applicable), its value in use (if determinable) and zero. The amount of the impairment loss that would otherwise have been allocated to the asset is allocated pro-rata to the other assets of the unit. An impairment loss is recognised immediately in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or a CGU) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or a CGU) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

Inventories

Inventories, including construction materials, gas appliances, natural gas, other energy inventories, spare parts and consumables and integrated energy appliances are stated at the lower of cost and net realisable value. Costs of inventories are determined using weighted average cost formula. Net realisable value represents the estimated selling price for inventories less all estimated costs to completion and the costs necessary to make the sale.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments

Financial assets and financial liabilities are recognised when a group entity becomes a party to the contractual provisions of the instrument. All regular way purchases or sales of financial assets are recognised and derecognised on a trade day basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the market place.

Financial assets and financial liabilities are initially measured at fair value except for trade receivables arising from contracts with customers which are initially measured in accordance with HKFRS 15 since 1 January 2018. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at FVTPL) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at FVTPL are recognised immediately in profit or loss.

The effective interest method is a method of calculating the amortised cost of a financial asset or financial liability and of allocating interest income and interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts and payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial asset or financial liability, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

Financial assets

Classification and subsequent measurement of financial assets (upon application of HKFRS 9 in accordance with transitions in Note 3)

Financial assets that meet the following conditions are subsequently measured at amortised cost:

- the financial asset is held within a business model whose objective is to collect contractual cash flows; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets that meet the following conditions are subsequently measured at FVTOCI:

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

All other financial assets are subsequently measured at FVTPL, except that at the date of initial application/initial recognition of a financial asset the Group may irrevocably elect to present subsequent changes in fair value of an equity investment in OCI if that equity investment is neither held for trading nor contingent consideration recognised by an acquirer in a business combination to which HKFRS 3 “Business Combinations” applies.

A financial asset is classified as held for trading if:

- it has been acquired principally for the purpose of selling in the near term; or
- on initial recognition it is a part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

In addition, the Group may irrevocably designate a financial asset that are required to be measured at the amortised cost or FVTOCI as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Financial assets (continued)

Classification and subsequent measurement of financial assets (upon application of HKFRS 9 in accordance with transitions in Note 3) *(continued)*

(i) Amortised cost and interest income

Interest income is recognised using the effective interest method for financial assets measured subsequently at amortised cost. Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit-impaired (see below). For financial assets that have subsequently become credit-impaired, interest income is recognised by applying the effective interest rate to the amortised cost of the financial asset from the next reporting period. If the credit risk on the credit impaired financial instrument improves so that the financial asset is no longer credit-impaired, interest income is recognised by applying the effective interest rate to the gross carrying amount of the financial asset from the beginning of the reporting period following the determination that the asset is no longer credit impaired.

(ii) Equity instruments designated as at FVTOCI

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognised in OCI and accumulated in the revaluation reserve; and are not subject to impairment assessment. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments, and will be transferred to retained profits.

Dividends from these investments in equity instruments are recognised in profit or loss when the Group's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment. Dividends are included in the "other income" line item in profit or loss.

(iii) Financial assets at FVTPL

Financial assets that do not meet the criteria for being measured at amortised cost or FVTOCI or designated as FVTOCI are measured at FVTPL.

Financial assets at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognised in profit or loss. The net gain or loss recognised in profit or loss excludes any dividend or interest earned on the financial asset and is included in the "other gains and losses" line item.

Impairment of financial assets (upon application HKFRS 9 with transitions in accordance with Note 3)

The Group recognises a loss allowance for ECL on financial assets which are subject to impairment under HKFRS 9 (including trade and other receivables, restricted bank deposits, bank balances, amounts due from associates/joint ventures/related companies and contract assets). The amount of ECL is updated at each reporting date to reflect changes in credit risk since initial recognition.

Lifetime ECL represents the ECL that will result from all possible default events over the expected life of the relevant instrument. In contrast, 12m ECL represents the portion of lifetime ECL that is expected to result from default events that are possible within 12 months after the reporting date. Assessment are done based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current conditions at the reporting date as well as the forecast of future conditions.

The Group always recognises lifetime ECL for trade receivables, contract assets and amounts due from associates/joint ventures/related companies arising from contracts with customers. The ECL on these assets are assessed individually for debtors with significant balances and collectively using a provision matrix with appropriate groupings for the remaining.

For all other financial assets at amortised cost, the Group measures the loss allowance equal to 12m ECL, unless when there has been a significant increase in credit risk since initial recognition, the Group recognises lifetime ECL. The assessment of whether lifetime ECL should be recognised is based on significant increases in the likelihood or risk of a default occurring since initial recognition.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Financial assets (continued)

Impairment of financial assets (upon application HKFRS 9 with transitions in accordance with Note 3) *(continued)*

(i) Significant increase in credit risk

In assessing whether the credit risk has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. In making this assessment, the Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly:

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- significant deterioration in external market indicators of credit risk, e.g. a significant increase in the credit spread, the credit default swap prices for the debtor;
- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;
- an actual or expected significant deterioration in the operating results of the debtor; and
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Group presumes that the credit risk has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise.

Despite the foregoing, the Group assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low credit risk at the reporting date. A financial instrument is determined to have low credit risk if i) it has a low risk of default, ii) the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and iii) adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations. The Group considers a financial instrument to have low credit risk when it has an external credit rating of "investment grade" as per globally understood definitions.

The Group regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

(ii) Definition of default

For internal credit risk management, the Group considers an event of default occurs when information developed internally or obtained from external sources indicates that the debtor is unlikely to pay its creditors, including the Group, in full (without taking into account any collaterals held by the Group).

Default has been considered occurred when the instrument is more than 90 days past due unless the Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Financial assets (continued)

Impairment of financial assets (upon application HKFRS 9 with transitions in accordance with Note 3) *(continued)*

(iii) Credit-impaired financial assets

A financial asset is credit-impaired when one or more events of default that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired includes observable data about the following events:

(a) significant financial difficulty of the issuer or the borrower;

(b) a breach of contract, such as a default or past due event;

(c) the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;

(d) it is becoming probable that the borrower will enter bankruptcy or other financial reorganisation; or

(e) the disappearance of an active market for that financial asset because of financial difficulties.

(iv) Write-off policy

The Group writes off a financial asset when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, for example, when the counterparty has been placed under liquidation or has entered into bankruptcy proceedings, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. A write-off constitutes a derecognition event. Any subsequent recoveries are recognised in profit or loss.

(v) Measurement and recognition of ECL

The measurement of ECL is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information. Estimation of ECL reflects an unbiased and probability-weighted amount that is determined with the respective risks of default occurring as the weights.

Generally, the ECL is the difference between all contractual cash flows that are due to the Group in accordance with the contract and the cash flows that the Group expects to receive, discounted at the effective interest rate determined at initial recognition.

Where ECL is measured on a collective basis or cater for cases where evidence at the individual instrument level may not yet be available, the financial instruments are grouped on the following basis:

- Nature of financial instruments (i.e. the Group's trade and other receivables, amounts due from associate/joint ventures/related companies in trade nature are each assessed as a separate group. Loans to related parties are assessed for expected credit losses on an individual basis);
- Aging status;
- Nature, size and industry of debtors; and
- External credit ratings where available.

The grouping is regularly reviewed by management to ensure the constituents of each group continue to share similar credit risk characteristics.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Financial assets (continued)

Impairment of financial assets (upon application HKFRS 9 with transitions in accordance with Note 3) *(continued)*

(v) Measurement and recognition of ECL (continued)

Interest income is calculated based on the gross carrying amount of the financial asset unless the financial asset is credit impaired, in which case interest income is calculated based on amortised cost of the financial asset.

For financial guarantee contracts, the loss allowances are recognised at the higher of the amount of the loss allowance determined in accordance with HKFRS 9; and the amount initially recognised less, where appropriate, cumulative amount of income recognised over the guarantee period.

The Group recognises an impairment gain or loss in profit or loss for all financial instruments by adjusting their carrying amount, with the exception of trade and other receivables, contract assets and amounts due from associate/joint ventures/related companies where the corresponding adjustment is recognised through a loss allowance account.

Classification and subsequent measurement of financial assets (before application of HKFRS 9 on 1 January 2018)

The Group's financial assets are classified into the following specified categories: financial assets at FVTPL, AFS financial assets and loans and receivables. The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

Financial assets at FVTPL

Financial assets are classified as at FVTPL when the financial assets is (i) held for trading; (ii) it is designated as at FVTPL; or (iii) contingent consideration that may be received by an acquirer as part of a business combination.

A financial asset is classified as held for trading if:

- it has been acquired principally for the purpose of selling it in the near term; or
- on initial recognition it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

Financial assets at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any dividend or interest earned on the financial assets and is included in the "other gains and losses" line item. Fair value is determined in the manner described in Note 54.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables (including trade and other receivables, amounts due from associates, amounts due from joint ventures, amounts due from related companies, restricted bank deposits and cash and cash equivalents) are measured at amortised cost using the effective interest method, less any identified impairment (see accounting policy on impairment loss on financial assets below).

Interest income is recognised by applying the effective interest rate, except for short-term receivables where the recognition of interest would be immaterial.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Financial assets (continued)

Classification and subsequent measurement of financial assets (before application of HKFRS 9 on 1 January 2018) *(continued)*

AFS financial assets

AFS financial assets are non-derivatives that are either designated as available-for-sale or are not classified as (a) loans and receivables, (b) held-to-maturity investments or (c) financial assets at FVTPL.

Equity and debt securities held by the Group that are classified as AFS financial assets and are measured at fair value at the end of each reporting period expect for unquoted equity investments whose fair value cannot be reliably measured. Changes in the carrying amount of AFS debt instruments relating to interest income calculated using the effective interest method are recognised in profit or loss. Dividends on AFS equity instruments are recognised in profit or loss when the Group's right to receive the dividends is established. Other changes in the carrying amount of AFS financial assets are recognised in other comprehensive income and accumulated under the heading of revaluation reserve. When the investment is disposed of or is determined to be impaired, the cumulative gain or loss previously accumulated in the revaluation reserve is reclassified to profit or loss (see accounting policy on impairment loss on financial assets below).

AFS equity investments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are measured at cost less any identified impairment losses at the end of the reporting period (see accounting policy on impairment loss on financial assets below).

Impairment of financial assets (before application of HKFRS 9 on 1 January 2018)

Financial assets, other than those at FVTPL, are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected.

For an AFS equity investment, a significant or prolonged decline in the fair value of that investment below its cost is considered to be objective evidence of impairment.

For all other financial assets, objective evidence of impairment could include:

- significant financial difficulty of the issuer or counterparty; or
- breach of contract, such as a default or delinquency in interest or principal payments; or
- it becoming probable that the borrower will enter bankruptcy or financial re-organisation.

Objective evidence of impairment for a portfolio of receivables could include the Group's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period of 60 to 90 days, as well as observable changes in national or local economic conditions that correlate with default on receivables.

For financial assets carried at amortised cost, the amount of the impairment loss recognised is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate.

For financial assets carried at cost, the amount of the impairment loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment loss will not be reversed in subsequent periods (see the accounting policy below).

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade and other receivables, amounts due from associates, joint ventures and related companies, where the carrying amount is reduced through the use of an allowance account. When a trade and other receivables, amounts due from associates, amounts due from joint ventures and amounts due from related companies is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited to profit or loss. Changes in the carrying amount of the allowance accounts are recognised in profit or loss.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Financial assets (continued)

Impairment of financial assets (before application of HKFRS 9 on 1 January 2018) *(continued)*

When an AFS financial asset is considered to be impaired, cumulative gains or losses previously recognised in other comprehensive income are reclassified to profit or loss in the period.

For financial assets measured at amortised cost, if, in a subsequent period, the amount of impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment loss was recognised, the previously recognised impairment loss is reversed through profit or loss to the extent that the carrying amount of the asset at the date the impairment is reversed does not exceed what the amortised cost would have been had the impairment not been recognised.

In respect of AFS equity investments, impairment losses previously recognised in profit or loss are not reversed through profit or loss. Any increase in fair value subsequent to an impairment loss is recognised in other comprehensive income and accumulated under the heading of investment revaluation reserve. In respect of AFS debt investment, impairment losses are subsequently reversed through profit or loss if an increase in the fair value of the investment can be objectively related to an event occurring after the recognition of the impairment loss.

Financial liabilities and equity instruments

Debt and equity instruments issued by a group entity are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognised at the proceeds received, net of direct issue costs.

Repurchase of the Company's own equity instruments is recognised and deducted directly in equity. No gain or loss is recognised in profit or loss on the purchase, sale, issue or cancellation of the Company's own equity instruments.

Effective interest method

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant reporting periods. The effective interest rate is the rate that exactly discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial liability, or, where appropriate, a shorter period to the net carrying amount on initial recognition. Interest expense is recognised on an effective interest basis.

Convertible bonds

The Group designated the convertible bonds as financial liabilities at FVTPL as the convertible bonds contained one or more embedded derivatives including the convertible option, which will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the Company's own equity instruments, and HKAS 39 "Financial Instruments: Recognition and Measurement" permits the entire combined contract to be designated as at FVTPL. Financial liabilities at FVTPL are measured at fair value, with any gains or losses arising on measurement recognised in profit or loss. The net gain or loss recognised in profit or loss is included in the "other gains and losses" line item. Fair value is determined in the manner described in Note 54.

Financial liabilities at amortised cost

Financial liabilities (including trade and other payables, amounts due to associates/joint ventures/related companies, bank and other loans, corporate bonds, senior notes and unsecured bonds) are subsequently measured at amortised cost, using the effective interest method.

4. SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial instruments *(continued)*

Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument.

A financial guarantee contract issued by the Group is initially measured at its fair value and if not designated as at FVTPL, are subsequently measured at the higher of: (i) the amount of the obligation under the contract, as determined in accordance with HKAS 37 "Provisions, Contingent Liabilities and Contingent Assets"; and (ii) the amount initially recognised less, where appropriate, cumulative amortisation. Amount initially recognised is amortised over the duration of the guarantee using the straight-line method.

Derivative financial instruments

Derivatives are initially recognised at fair value at the date when derivative contracts are entered into and are subsequently remeasured to their fair value at the end of the reporting period. The resulting gain or loss is recognised in profit or loss immediately unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

Generally, multiple embedded derivatives in a single instrument that are separated from the host contracts are treated as a single compound embedded derivative unless those derivatives relate to different risk exposures and are readily separable and independent of each other.

Embedded derivatives (under HKFRS 9 since 1 January 2018)

Derivatives embedded in hybrid contracts that contain financial asset hosts within the scope of HKFRS 9 are not separated. The entire hybrid contract is classified and subsequently measured in its entirety as either amortised cost or fair value as appropriate.

Derivatives embedded in non-derivative host contracts that are not financial assets within the scope of HKFRS 9 are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL.

Embedded derivatives (before application of HKFRS 9 on 1 January 2018)

Derivatives embedded in non-derivative host contracts are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL.

Derecognition

The Group derecognises a financial asset only when the rights to receive cash flows from the assets expire or, when it transfers the financial assets and substantially all the risks and rewards of ownership of the assets to another entity. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

On derecognition of a financial asset, the difference between the asset's carrying amount and the consideration received and receivable is recognised in profit or loss.

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

Offsetting a financial asset and a financial liability

A financial asset and a financial liability are offset and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the recognised amounts and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

5. KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group's accounting policies, which are described in Note 4, the Directors are required to make estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and underlying assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the reporting period in which the estimate is revised if the revision affects only that reporting period, or in the reporting period of the revision and future reporting periods if the revision affects both current and future reporting periods.

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

Recognition of intangible assets acquired in business acquisition

The Group accounts for acquisitions of businesses by using the acquisition method, and the consideration transferred for the business acquisition is allocated to the identifiable assets acquired and liabilities assumed based on their respective fair values as at acquisition date, including intangible assets. The Group usually determines the fair value of intangible assets using excess earning method, which requires a set of estimations and a determination of key inputs, including the profit margins, revenue growth rates and discount rates. Any changes to these inputs may have significant impact on the fair value of intangible assets, and will consequently have further impact on the goodwill or the profit or loss in the case of a bargain purchase gain.

Estimated impairment of goodwill and intangible assets

Determining whether goodwill and intangible assets are impaired requires the estimation of the recoverable amount of the CGUs to which goodwill and intangible assets have been allocated which is the higher of the fair value less costs of disposal and its value in use. The value in use calculation requires the Group to estimate the future cash flows expected to arise from the CGU and a suitable discount rate in order to calculate the present value. Where the actual future cash flows are less than expected, or changes in facts and circumstances which results in downward revision of future cash, a material impairment loss may arise. As at 31 December 2018, the carrying amount of goodwill and intangible assets less accumulated amortisation is RMB2,248 million and RMB3,037 million (2017: RMB192 million and RMB1,681 million), respectively. Details of the calculation of the recoverable amount are set out in Note 19.

Fair value measurement of financial instruments

Certain of the Group's financial instruments, including unlisted equity securities and derivative contracts amounting to RMB3,727 million as at 31 December 2018 are measured at fair values with fair values being determined based on complex valuation techniques or unobserved inputs. Judgement and estimation are required in establishing the relevant valuation techniques and the relevant inputs such as liquidity discount, estimates of future prices, market price volatility and credit risk. Changes in assumptions relating to these factors could affect the reported fair values of these instruments. Further disclosures are set out in Note 54.

Provision of ECL for trade receivables and contract assets

The Group uses provision matrix to calculate ECL for the trade receivables and contract assets. The provision rates are based on shared credit risk characteristic as groupings of various debtors that have similar loss patterns. The provision matrix is based on the debtors' historical default rates taking into consideration forward-looking information that is reasonable and supportable available without undue costs or effort. At each reporting date, the historical observed default rates are reassessed and changes in the forward-looking information are considered. In addition, trade receivables and contract assets with significant balances and credit impaired are assessed for ECL individually. The provision of ECL is sensitive to changes in estimates. The information about the ECL and the Group's trade receivables and contract assets are disclosed in Notes 23, 28 and 54 respectively.

Depreciation of property, plant and equipment

Property, plant and equipment are depreciated on a straight-line basis over their estimated useful lives, after taking into account the estimated residual value. The Group assesses annually the residual value and the useful life of the property, plant and equipment and if the expectation differs from the original estimates, such differences from the original estimates will impact the depreciation charges in the year in which the estimates change. As at 31 December 2018, the carrying amount of property, plant and equipment less accumulated depreciation and accumulated impairment losses is RMB31,073 million (2017: RMB 25,490 million).

6. REVENUE

	2018 RMB million	2017 RMB million
Revenue comprises the following:		
Sales of goods		
Sales of piped gas	**31,434**	23,948
Vehicle gas refuelling stations	**2,838**	3,102
Wholesale of gas	**18,107**	11,878
Sales of integrated energy	**875**	234
Sales of gas appliances	**435**	320
Sales of material	**997**	2,773
	54,686	42,255
Provision of services		
Construction and installation	**5,882**	5,954
Integrated energy	**130**	60
	6,012	6,014
	60,698	48,269

Disaggregation of revenue from contracts with customers

	Year ended 31 December 2018	
	Sales of goods RMB million	Construction services RMB million
Types of goods or services		
Construction and installation	–	5,882
Sales of piped gas	31,434	–
Vehicle gas refuelling stations	2,838	–
Wholesale of gas	18,107	–
Sales of integrated energy and services	875	130
Sales of gas appliances	435	–
Sales of material	997	–
	54,686	6,012
Timing of revenue recognition		
A point in time	54,686	–
Over time	–	6,012
	54,686	6,012

The performance obligations of the Group are part of contracts mainly with an original expected duration of one year or less. As permitted under HKFRS 15, the transaction price allocated to these unsatisfied contracts is not disclosed.

7. SEGMENT INFORMATION

Information reported to the chief operating decision maker, the chief executive officer of the Company (the "CEO"), for the purposes of resource allocation and performance assessment among segments focuses specifically on different type of goods and services. Specifically, the Group's operating and reportable segment under HKFRS 8 are construction and installation, sales of piped gas, vehicle gas refuelling stations, wholesale of gas, sales of integrated energy and services, sales of gas appliances and sales of material. Segment profit reviewed by the CEO represents the gross profit earned by each segment. The accounting policies of the reportable segments are the same as the Group's accounting policies described in Note 4.

Segment revenue and results

Segment profit represents the profit earned by each segment without allocation of central administration costs, distribution and selling expenses, share of profit of associates and joint ventures, other income, other gains and losses and finance costs. This is the measure reported to the CEO for the purposes of resource allocation and performance assessment.

Inter-segment sales are charged at prevailing market rates.

The following is an analysis of the Group's revenue and results by reportable segments which are also the operating segments for the year:

2018	**Construction and installation RMB million**	**Sales of piped gas RMB million**	**Vehicle gas refuelling stations RMB million**	**Wholesale of gas RMB million**	**Sales of integrated energy and services RMB million**	**Sales of gas appliances RMB million**	**Sales of material RMB million**	**Consolidation RMB million**
Segment revenue	**7,376**	**42,038**	**2,886**	**26,147**	**1,114**	**1,097**	**3,789**	**84,447**
Inter segment sales	**(1,494)**	**(10,604)**	**(48)**	**(8,040)**	**(109)**	**(662)**	**(2,792)**	**(23,749)**
Revenue from external customers	**5,882**	**31,434**	**2,838**	**18,107**	**1,005**	**435**	**997**	**60,698**
Segment profit before depreciation and amortisation	**3,659**	**5,667**	**295**	**233**	**196**	**296**	**254**	**10,600**
Depreciation and amortisation	**(203)**	**(727)**	**(100)**	**(5)**	**(53)**	**(2)**	**–**	**(1,090)**
Segment profit	**3,456**	**4,940**	**195**	**228**	**143**	**294**	**254**	**9,510**

2017	Construction and installation RMB million	Sales of piped gas RMB million	Vehicle gas refuelling stations RMB million	Wholesale of gas RMB million	Sales of integrated energy and services RMB million	Sales of gas appliances RMB million	Sales of material RMB million	Consolidation RMB million
Segment revenue	7,133	31,540	3,187	18,153	308	882	4,744	65,947
Inter segment sales	(1,179)	(7,592)	(85)	(6,275)	(14)	(562)	(1,971)	(17,678)
Revenue from external customers	5,954	23,948	3,102	11,878	294	320	2,773	48,269
Segment profit before depreciation and amortisation	3,931	4,628	301	221	31	124	35	9,271
Depreciation and amortisation	(196)	(590)	(124)	(4)	(16)	(2)	–	(932)
Segment profit	3,735	4,038	177	217	15	122	35	8,339

7. SEGMENT INFORMATION *(continued)*

Segment assets and liabilities

An analysis of the Group's total assets and liabilities by segment is as follows:

2018	**Construction and installation RMB million**	**Sales of piped gas RMB million**	**Vehicle gas refuelling stations RMB million**	**Wholesale of gas RMB million**	**Sales of integrated energy and services RMB million**	**Sales of gas appliances RMB million**	**Sales of material RMB million**	**Consolidation RMB million**
Assets:								
Segment assets	**5,559**	**25,430**	**3,116**	**1,309**	**2,942**	**711**	**840**	**39,907**
Interests in associates								**3,049**
Interests in joint ventures								**3,620**
Unallocated corporate assets								**27,338**
Consolidated total assets								**73,914**
Liabilities:								
Segment liabilities	**9,610**	**6,611**	**395**	**413**	**2,328**	**315**	**1,007**	**20,679**
Bank and other loans								**10,722**
Corporate bonds								**2,497**
Senior notes								**2,491**
Unsecured bonds								**4,539**
Unallocated corporate liabilities								**7,432**
Consolidated total liabilities								**48,360**

2017	Construction and installation RMB million	Sales of piped gas RMB million	Vehicle gas refuelling stations RMB million	Wholesale of gas RMB million	Sales of integrated energy and services RMB million	Sales of gas appliances RMB million	Sales of material RMB million	Consolidation RMB million
Assets:								
Segment assets	4,137	21,331	3,306	817	1,738	705	331	32,365
Interests in associates								1,505
Interests in joint ventures								3,929
Unallocated corporate assets								21,416
Consolidated total assets								59,215
Liabilities:								
Segment liabilities	9,307	4,816	414	368	954	240	405	16,504
Bank and other loans								2,260
Corporate bonds								5,490
Senior notes								2,366
Convertible bonds at FVTPL								3,635
Unsecured bonds								4,316
Unallocated corporate liabilities								4,427
Consolidated total liabilities								38,998

7. SEGMENT INFORMATION *(continued)*

Segment assets and liabilities *(continued)*

For the purposes of monitoring segment performances and allocating resources between segments:

- all assets are allocated to reportable segments other than unallocated corporate assets, mainly including unallocated property, plant and equipment, intangible assets, goodwill, prepaid lease payments, investment properties, interests in associates, interests in joint ventures, deferred tax assets, certain other receivables, contract assets, deposits, amounts due from associates, joint ventures and related companies, AFS financial assets, equity instruments at FVTOCI, financial assets at FVTPL, restricted bank deposits and cash and cash equivalents. Assets used jointly by segments are allocated on the basis of the revenues earned by individual segments; and
- all liabilities are allocated to reportable segments other than unallocated corporate liabilities, mainly including certain other payables, contract liabilities, amounts due to associates, joint ventures and related companies, taxation payables, bank and other loans, corporate bonds, senior notes, convertible bonds at FVTPL, financial liabilities at FVTPL, unsecured bonds, financial guarantee liability and deferred tax liabilities. Liabilities for which segments are jointly liable are allocated in proportion to segments assets.

For the purposes of presenting segment revenue, results, assets and liabilities, the Group allocates certain property, plant and equipment and prepaid lease payments to certain segments with the related depreciation and release of prepaid lease payments to those segments.

Other segment information

Amounts included in the measurement of segment profit and segment assets:

	Construction and installation RMB million	Sales of piped gas RMB million	Vehicle gas refuelling stations RMB million	Wholesale of gas RMB million	Sales of integrated energy and services RMB million	Sales of gas appliances RMB million	Sales of material RMB million	Consolidation RMB million
2018								
Additions to non-current assets (note b)	**1,034**	**5,388**	**354**	**103**	**3,418**	**3**	**11**	**10,311**
Depreciation and amortisation	**203**	**727**	**100**	**5**	**53**	**2**	**–**	**1,090**
Impairment losses on trade receivables recognised (reversed) in profit or loss	**39**	**(12)**	**(7)**	**(14)**	**12**	**3**	**1**	**22**
Impairment losses on contract assets recognised in profit or loss	**22**	**–**	**–**	**–**	**3**	**–**	**–**	**25**
2017								
Additions to non-current assets (note b)	708	3,225	302	45	83	5	1	4,369
Depreciation and amortisation	196	590	124	4	16	2	–	932
Impairment losses on property, plant and equipment	–	–	478	–	–	–	–	478
Impairment loss on trade and other receivables recognised (reversed) in profit or loss	65	16	69	(6)	3	(2)	–	145

7. SEGMENT INFORMATION *(continued)*

Other segment information *(continued)*

	Additions to non-current assets (note b)		Depreciation and amortisation	
	2018	2017	**2018**	2017
	RMB million	RMB million	**RMB million**	RMB million
Segment total	**10,311**	4,369	**1,090**	932
Adjustments (note a)	**477**	909	**196**	186
Total	**10,788**	5,278	**1,286**	1,118

Notes:

a. Adjustments represent amounts incurred for corporate headquarters and are not allocated to operating segments.

b. Non-current assets include property, plant and equipment, prepaid lease payments, goodwill and intangible assets.

There is no single customer contribute more than 10% of the total revenue of the Group.

Substantially all of the Group's revenue and non-current assets are located in the PRC. For the year ended 31 December 2018, the revenues from the PRC and overseas were RMB60,568 million (2017: RMB48,056 million) and RMB130 million (2017: RMB 213 million), respectively. As of 31 December 2018, the non-current assets located in the PRC were RMB37,746 million (2017: RMB 28,520 million) and overseas were RMB13 million (2017: RMB 74 million).

8. OTHER INCOME

	2018	2017
	RMB million	RMB million
Other income mainly includes:		
Incentive subsidies (note)	**164**	132
Dividends income from equity instruments at FVTOCI	**2**	–
Dividends income from financial assets at FVTPL	**352**	–
Dividends income from AFS investments	**–**	148
Interest income on bank deposits	**65**	149
Interest income on loan receivables from joint ventures and associates	**82**	73
Interest income on loan receivables from third parties	**15**	–
Rental income from investment properties	**13**	15
Rental income from equipment, net	**48**	31
Financial guarantee income	**5**	17
Sale of proprietary technology	**23**	27

Note: The amount mainly represents refunds of various taxes as incentives and other incentives related to the Group's operation by the government authorities in various cities of the PRC.

9. OTHER GAINS AND LOSSES

	2018 RMB million	2017 RMB million
(Loss) gain on disposal of:		
– Property, plant and equipment	**(47)**	(55)
– Prepaid lease payments	**13**	14
– Subsidiaries (Note 50)	**(2)**	(13)
– Joint ventures	**16**	–
– An associate	**–**	18
– An AFS investment	**–**	1
Gain on dilution of equity interests in joint ventures	**72**	–
Gain on remeasurement of interests on joint ventures previously held (Notes 48 & 49)	**111**	–
Increase in fair value of investment properties (Note 18)	**9**	10
Gain (loss) on repurchase and redemption of convertible bonds at FVTPL (Note 44)	**34**	(4)
Fair value loss on convertible bonds at FVTPL (Note 44)	**(249)**	(278)
Fair value loss on financial assets/liabilities at FVTPL (Note 24)	**(797)**	(314)
Impairment losses on property, plant and equipment (Note 16)	**–**	(478)
Impairment losses, net of reversal:		
– Trade and other receivables	**(29)**	(145)
– Contract assets	**(25)**	–
– Amounts due from associates/joint ventures/related companies	**(10)**	–
(Loss) gain on foreign exchange, net (note)	**(770)**	349
Release of exchange reserve to profit or loss upon disposal of subsidiaries	**40**	–
	(1,634)	(895)

Note: Included in the amount for the year ended 31 December 2018 is an exchange loss of approximately RMB707 million (2017: exchange gain of approximately RMB338 million) arising from the translation of senior notes, unsecured bonds and bank loans denominated in USD and HK$ to RMB.

10. FINANCE COSTS

	2018 RMB million	2017 RMB million
Interest on:		
Bank and other loans	**269**	148
Medium-term notes	**–**	31
Senior notes	**151**	153
Corporate bonds	**188**	221
Unsecured bonds	**149**	75
	757	628
Less: Amount capitalised under construction in progress (note)	**(120)**	(76)
	637	552

Note: Borrowing costs capitalised during both years were incurred on funds borrowed specifically and generally for the purpose of expenditure on qualifying assets. In respect of funds borrowed generally for the purpose of expenditure on qualifying assets, the amount of borrowing costs capitalised during the year was calculated by applying a capitalisation rate of 3.82% (2017: 3.38%) per annum.

11. PROFIT BEFORE TAX

	2018 RMB million	2017 RMB million
Profit before tax has been arrived at after (crediting) charging:		
Share-based payment expenses, including directors' emoluments (included in administrative expenses)	19	34
Other staff costs, including directors' emoluments	2,721	2,367
Less: Amount of other staff costs capitalised under construction in progress	(149)	(30)
	2,591	2,371
Depreciation and amortisation:		
Property, plant and equipment	1,144	1,016
Intangible assets	142	102
Total depreciation and amortisation (note)	1,286	1,118
Release of prepaid lease payments	43	38
Auditors' remuneration	23	14
Minimum lease payments under operating leases in respect of premises and equipment recognised in profit or loss	199	129

Note: The amount of total staff costs and depreciation and amortisation included in cost of sales, distribution and selling expenses and administrative expenses are as follows:

	2018 RMB million	2017 RMB million
Staff costs included in:		
Cost of sales	914	915
Distribution and selling expenses	582	464
Administrative expenses	1,095	992
	2,591	2,371
Depreciation and amortisation included in:		
Cost of sales	1,090	932
Distribution and selling expenses	11	12
Administrative expenses	185	174
	1,286	1,118

12. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS

a. Directors' emoluments

Emoluments paid and payable to the Directors for the year were as follows:

	2018					
Name of director	Fee RMB'000	Salaries and allowance RMB'000	Discretionary performance bonus RMB'000	Share-based payment RMB'000	Retirement benefit scheme contributions RMB'000	Total emoluments RMB'000
Executive Directors: (note a)						
Wang Yusuo	–	2,597	–	863	–	3,460
Cheung Yip Sang	–	1,598	2,400	792	15	4,805
Wang Zizheng*	133	972	900	89	14	2,108
Han Jishen	–	3,000	4,177	627	19	7,823
Liu Min**	–	2,800	2,639	–	126	5,565
Wang Dongzhi	–	1,499	180	569	–	2,248
Sean SJ Wang***	–	–	–	–	–	–
Sub-total	133	12,466	10,296	2,940	174	26,009
Independent Non-executive Directors: (note c)						
Ma Zhixiang	400	–	–	89	–	489
Yuen Po Kwong	400	–	–	89	–	489
Law Yee Kwan, Quinn	400	–	–	89	–	489
Yien Yu Yu, Catherine****	33	–	–	–	–	33
Sub-total	1,233	–	–	267	–	1,500
Total	1,366	12,466	10,296	3,207	174	27,509

* Mr. Wang Zizheng was redesignated as an executive director of the Company from non-executive director of the Company since 11 May 2018.

** Mr. Liu Min was appointed as executive director of the Company on 12 January 2018.

*** Mr. Sean SJ Wang was appointed as executive director of the Company on 21 March 2017 and he resigned subsequently on 12 January 2018.

**** Ms. Yien Yu Yu, Catherine was appointed as an independent non-executive director of the Company on 30 November 2018.

12. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS *(continued)*

a. Directors' emoluments *(continued)*

Emoluments paid and payable to the Directors for the year were as follows: *(continued)*

	2017					
Name of director	Fee RMB'000	Salaries and allowance RMB'000	Discretionary performance bonus RMB'000	Share-based payment RMB'000	Retirement benefit scheme contributions RMB'000	Total emoluments RMB'000
Executive Directors: (note a)						
Wang Yusuo	–	2,671	1,400	1,634	–	5,705
Cheung Yip Sang	–	1,644	2,550	1,499	16	5,709
Han Jishen	–	2,730	1,930	1,186	86	5,932
Sean SJ Wang	–	2,940	1,826	–	16	4,782
Wang Dongzhi	–	1,225	–	1,076	16	2,317
Sub-total	–	11,210	7,706	5,395	134	24,445
Non-executive Directors: (note b)						
Wang Zizheng	200	–	–	169	–	369
Jin Yongsheng*	48	–	–	100	–	148
Sub-total	248	–	–	269	–	517
Independent Non-executive Directors: (note c)						
Ma Zhixiang	200	–	–	169	–	369
Yuen Po Kwong	200	–	–	169	–	369
Law Yee Kwan, Quinn	200	–	–	169	–	369
Sub-total	600	–	–	507	–	1,107
Total	848	11,210	7,706	6,171	134	26,069

* Mr. Jin Yongsheng resigned from office as non-executive director of the Company on 21 March 2017.

Notes:

a. The executive directors' emoluments shown above were mainly for their services in connection with the management of the affairs of the Company and the Group.

b. The non-executive directors' emoluments shown above were mainly for their services as directors of the Company.

c. The independent non-executive directors' emoluments shown above were mainly for their services as directors of the Company.

The amounts disclosed above include directors' fees of RMB1,233,000 (2017: RMB600,000) paid or payable to independent non-executive directors. None of the Directors waived any emoluments during both years.

The discretionary performance bonus is determined by reference to the Group's performance during the year.

12. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS *(continued)*

b. Five highest paid individuals

The five highest paid employees of the Group during the year included three (2017: four) directors, details of whose remuneration are set out in Note 12(a) above. Details of the remuneration for the year of the remaining two (2017: one) highest paid employees who are neither a director nor chief executive of the Company are as follows:

	2018 RMB'000	2017 RMB'000
Salaries and allowance	**3,502**	1,963
Discretionary performance bonus	**5,447**	2,200
Share-based payment	**507**	479
Retirement benefits scheme	**188**	101
	9,644	4,743

The number of the highest paid employees included the directors of the Company whose remuneration fell within the following bands is as follows:

	2018 Number of employees	2017 Number of employees
HK$5,000,001 to HK$5,500,000	**–**	1
HK$5,500,001 to HK$6,000,000	**3**	1
HK$6,500,001 to HK$7,000,000	**1**	3
HK$9,000,001 to HK$9,500,000	**1**	–
	5	5

13. INCOME TAX EXPENSE

	2018 RMB million	2017 RMB million
Current tax	**1,586**	1,576
Underprovision in prior years	**9**	44
Withholding tax	**158**	101
	1,753	1,721
Deferred tax (Note 32)	**30**	(204)
	1,783	1,517

The charge substantially represents PRC Enterprise Income Tax for both years.

Under the Law of the PRC on Enterprise Income Tax (the "EIT Law") and Implementation Regulation of the EIT Law, the tax rate applicable for PRC group entities is 25%.

Certain subsidiaries of the Company are qualified as "High and New Tech Enterprises", which are subject to PRC Enterprise Income Tax at the preferential rate of 15% of the estimated assessable profit as determined in accordance with relevant tax rules and regulations in the PRC. This preferential rate could be applied for three years and the subsidiaries are eligible to apply the tax concession again upon expiry of the three-year period.

Hong Kong Profits Tax is calculated at 16.5% of the estimated assessable profit for both years.

13. INCOME TAX EXPENSE *(continued)*

Income tax charge for the year can be reconciled to the profit before tax per the consolidated statement of profit or loss and other comprehensive income as follows:

	2018 RMB million	2017 RMB million
Profit before tax	**5,601**	5,190
Tax at the PRC Enterprise Income Tax rate of 25% (2017: 25%)	**1,400**	1,298
Tax effects of share of results of associates	**(69)**	(32)
Tax effects of share of results of joint ventures	**(150)**	(126)
Tax effects of income not taxable for tax purpose	**(207)**	(217)
Tax effects of expenses not deductible for tax purpose	**668**	417
Tax effects of tax losses not recognised	**154**	78
Utilisation of tax losses previously not recognised	**(50)**	(119)
Tax effects of deductible temporary differences not recognised	**(7)**	132
Tax concession and exemption granted to certain PRC subsidiaries	**(146)**	(62)
Underprovision in respect of prior years	**9**	44
Withholding tax on undistributed profit of PRC entities	**181**	104
Income tax charge for the year	**1,783**	1,517

14. DIVIDENDS

	2018 RMB million	2017 RMB million
Final dividend paid in respect of previous financial year	**952**	775

Notes:

a. 2017 final dividend of HK$1.08 (equivalent to approximately RMB0.90) per ordinary share or approximately RMB952 million in aggregate was paid during the year ended 31 December 2018.

b. The proposed final dividend in respect of 2018 of HK$1.19 (equivalent to approximately RMB1.04) per ordinary share with total amount of HK$ 1,338 million (2017: HK$1,177 million) has been proposed by the Directors and is subject to approval by the shareholders in the forthcoming annual general meeting.

15. EARNINGS PER SHARE

The calculation of the basic and diluted earnings per share attributable to the owners of the Company is based on the following data:

Basic earnings per share

Basic earnings per share for the years ended 31 December 2018 and 2017 are calculated by dividing the profit attributable to the owners of the Company by the weighted average number of ordinary shares in issue during the year.

	2018	2017
Profit for the year attributable to the owners of the Company (RMB million)	**2,818**	2,802
Weighted average number of ordinary shares	**1,099,639,474**	1,081,956,725
Basic earnings per share (RMB)	**2.56**	2.59

The weighted average number of ordinary shares for the purpose of basic earnings per share has been adjusted for the share issuance in connection with an acquisition of subsidiaries on 16 August 2018 as set out in Note 48.

Diluted earnings per share

Diluted earnings per share for the year ended 31 December 2018 and 2017 are calculated assuming all dilutive potential ordinary shares were converted, except for the conversion of the Company's outstanding convertible bonds since their conversion would result in an increase in earnings per share.

	2018	2017
Earnings		
Earnings for the purpose of diluted earnings per share (RMB million)	**2,818**	2,802
Number of shares		
Weighted average number of ordinary shares for the purpose of basic earnings per share	**1,099,639,474**	1,081,956,725
Effect of dilutive potential ordinary shares:		
– share options	**2,864,964**	878,186
Weighted average number of ordinary shares for the purpose of diluted earnings per share	**1,102,504,438**	1,082,834,911
Diluted earnings per share (RMB)	**2.56**	2.59

16. PROPERTY, PLANT AND EQUIPMENT

	Leasehold land and buildings RMB million	Pipelines RMB million	Machinery and equipment RMB million	Motor vehicles RMB million	Office equipment RMB million	Properties under construction RMB million	Total RMB million
COST							
At 1 January 2017	3,377	17,997	1,873	462	1,326	2,378	27,413
Exchange adjustments	(8)	–	(10)	–	(1)	(12)	(31)
Acquisition of subsidiaries and businesses	21	71	52	2	2	101	249
Additions	136	141	160	17	169	3,989	4,612
Revaluation surplus before the transfer to investment properties	4	–	–	–	–	–	4
Transfer to assets classified as held for sale	(184)	–	(194)	(7)	(18)	(243)	(646)
Reclassification	342	2,178	184	–	36	(2,740)	–
Transfer to investment properties	(31)	–	–	–	–	–	(31)
Disposal of a subsidiary	–	–	(11)	(4)	–	–	(15)
Disposals	(7)	(49)	(26)	(53)	(34)	(12)	(181)
At 31 December 2017	3,650	20,338	2,028	417	1,480	3,461	31,374
Acquisition of subsidiaries and businesses	198	325	197	2	16	170	908
Additions	126	302	229	88	185	5,156	6,086
Reclassification	243	3,467	344	–	25	(4,079)	–
Transfer to prepaid lease payments	–	–	–	–	–	(5)	(5)
Transfer to investment properties	(2)	–	–	–	–	–	(2)
Disposal of subsidiaries	(58)	(49)	(83)	(1)	(8)	(4)	(203)
Disposals	(24)	(97)	(73)	(62)	(19)	(8)	(283)
At 31 December 2018	4,133	24,286	2,642	444	1,679	4,691	37,875
DEPRECIATION AND IMPAIRMENT							
At 1 January 2017	463	3,153	534	256	710	–	5,116
Exchange adjustments	(2)	–	(3)	–	–	–	(5)
Provided for the year	119	562	168	51	116	–	1,016
Eliminated on transfer to investment properties	(2)	–	–	–	–	–	(2)
Eliminated on transfer to assets classified as held for sale	(179)	–	(189)	(6)	(17)	(207)	(598)
Impairment losses recognised during the year	147	–	119	–	5	207	478
Disposal of a subsidiary	–	–	(2)	(1)	–	–	(3)
Eliminated on disposals	(2)	(23)	(18)	(46)	(29)	–	(118)
At 31 December 2017	544	3,692	609	254	785	–	5,884
Provided for the year	128	642	180	50	144	–	1,144
Disposal of subsidiaries	(15)	(10)	(47)	(5)	(6)	–	(83)
Eliminated on disposals	(4)	(36)	(35)	(54)	(14)	–	(143)
At 31 December 2018	653	4,288	707	245	909	–	6,802
CARRYING VALUES							
At 31 December 2018	3,480	19,998	1,935	199	770	4,691	31,073
At 31 December 2017	3,106	16,646	1,419	163	695	3,461	25,490

16. PROPERTY, PLANT AND EQUIPMENT *(continued)*

The above items of property, plant and equipment, other than properties under construction, are depreciated on a straight-line basis as follows:

Leasehold land and buildings	Over the shorter of 30 years or the term of the leases
Pipelines	Over the shorter of 30 years or the term of the leases
Machinery and equipment	10 years
Motor vehicles	6 years
Office equipment	6 years

At the end of the reporting period, except for certain land and buildings with the carrying value of RMB38 million (2017: RMB 39 million) which are located in Hong Kong under long-term lease, the remaining land and buildings are located in the PRC under medium-term lease.

At the end of the reporting period, the Group is in the process of applying for ownership certificates for its buildings in the PRC amounting to approximately RMB255 million (2017: RMB 291 million).

17. PREPAID LEASE PAYMENTS

	2018 **RMB million**	2017 RMB million
The Group's prepaid lease payments comprise land in the PRC under medium-term lease	**1,440**	1,299
Analysed for reporting purposes as:		
Current portion	**39**	37
Non-current portion	**1,401**	1,262

At the end of the reporting period, the Group is in the process of applying for the land use right certificates for the land in the PRC amounting to approximately RMB108 million (2017: RMB132 million). In the opinion of the Directors, the Group is not required to incur additional cost in obtaining the land use right certificates for the land in the PRC.

18. INVESTMENT PROPERTIES

	RMB million
FAIR VALUE	
At 1 January 2017	208
Exchange adjustment	(1)
Net increase in fair value recognised in profit or loss	10
Transfers from property, plant and equipment	29
At 31 December 2017	246
Exchange adjustment	2
Net increase in fair value recognised in profit or loss	9
Transfers from property, plant and equipment	8
At 31 December 2018	265
Unrealised gains on property revaluation included in profit or loss, as at 31 December 2018	72

All of the Group's property interests held under operating leases to earn rentals or for capital appreciation purposes are measured using the fair value model and are classified and accounted for as investment properties. These investment properties include land and buildings which comprise operating leases in respect of properties situated in the PRC and Hong Kong under medium-term.

18. INVESTMENT PROPERTIES *(continued)*

The fair value of the Group's investment properties at 31 December 2018 and 2017 has been arrived at on the basis of a valuation carried out on those dates by Knight Frank Petty, a firm of independent valuers. The fair value was determined based on the income approach, where the market rentals of all lettable units of the properties are assessed and discounted at the market yield expected by investors for this type of properties. A significant increase in the market rent used would result in a significant increase in fair value, and vice versa. The Group's investment properties were classified in the Level 3 of fair value hierarchy as at 31 December 2018 and 2017.

In estimating the fair value of the properties, the highest and best use of the properties is their current use.

19. GOODWILL

	2018 RMB million	2017 RMB million
COST		
At 1 January	**813**	840
Acquisition of businesses (Note 48)	**2,056**	13
Disposal of subsidiaries (note)	**(570)**	(9)
Exchange adjustments	**–**	(31)
At 31 December	**2,299**	813
IMPAIRMENT		
At 1 January	**(621)**	(652)
Eliminated on disposal of subsidiaries (note)	**570**	–
Exchange adjustments	**–**	31
At 31 December	**(51)**	(621)
CARRYING VALUES		
At 31 December	**2,248**	192

Note: As at 31 December 2017, the total impairment losses in relation to goodwill arising on acquisition of gas refuelling business in the United States and Canada were amounted to RMB570 million. The gas refuelling business in the United States and Canada were disposed of by the Group during the year ended 31 December 2018. Details of the disposal are disclosed in Note 50.

The Group tests goodwill annually for impairment, or more frequently if there are indications that goodwill might be impaired.

For the purposes of impairment testing, goodwill has been allocated to the following CGUs. At the end of the reporting period, the carrying value of goodwill mainly represents goodwill arising from the acquisition of:

	2018 RMB million	2017 RMB million
Integrated energy business located in the PRC	**1,998**	–
Sale of piped gas business located in Anhui, PRC	**34**	–
Sale of piped gas business located in Lianyungang, the PRC	**18**	18
Sale of piped gas business located in Kaifeng, the PRC	**16**	16
Sale of piped gas business located in Hangzhou, the PRC	**37**	37
Sale of piped gas business located in Guangdong, the PRC	**21**	21
Other CGUs of sales of piped gas business, the PRC	**124**	100
	2,248	192

19. GOODWILL *(continued)*

For the purpose of impairment testing, the recoverable amounts of the CGUs are determined from value in use calculations.

CGU of integrated energy business in the PRC

The Group prepares cash flow projection for integrated energy business in the PRC covering a 7-year period and the cash flow beyond the 7-year period was extrapolated using a steady growth rate of 3%. For the 7-year period, the first three years are based on financial budgets approved by management and based on the pattern consistent with the track record of the respective entity taking into account the stage of the development of the respective integrated energy projects. The revenues beyond the 3-year period but within the seventh year was estimated using an annualised growth rates of 21.55%. The growth rates are based on the management's estimation on the respective entity's projected market share and do not exceed average long-term growth rate for the relevant industry. The gross profit margin will be assumed the same beyond the 7-year period.

The Directors estimate discount rate using pre-tax rate that reflect current market assessment of the time value of money and the risks specific to the CGU and determined the discount rate to be 13.00%.

CGUs of sales of piped gas business in the PRC

For CGUs in the PRC, the Group prepares cash flow projection covering a 10-year period which is shorter than the contractual operating period. The cash flow projections for the first three years are based on financial budgets approved by management. The 3-year period financial budgets are prepared based on the pattern consistent with the track record of the respective entities taking into account the stage of the development of the respective gas projects. The cash flow beyond the 3-year period are extrapolated using an estimated growth pattern at an annualised growth rates of revenue for each CGU ranging from 4.37% to 7.17% (2017: 4.88% to 10.94%) and assuming the gross profit margin will be the same throughout the 10-year period.

The growth rates are based on the management's estimation on the respective entity's projected market share and will not exceed the growth rate of natural gas consumption projected by the relevant government authorities.

The Directors estimate discount rates using pre-tax rates that reflect current market assessments of the time value of money and the risks specific to the CGUs and determined the discount rate to be 11.12% to 11.76% (2017: 11.25% to 11.89%).

The Directors believe that any reasonably possible change in any of these assumptions would not cause the carrying amounts of goodwill to exceed the recoverable amount of respective CGUs.

20. INTANGIBLE ASSETS

	Right of operation RMB million	Customer base RMB million	Software RMB million	Technology RMB million	Development cost RMB million	Total RMB million
COST						
At 1 January 2017	1,955	50	–	–	25	2,030
Acquisition of subsidiaries and businesses (Notes 48 and 49)	157	–	–	–	–	157
Additions	53	–	26	–	60	139
At 31 December 2017	2,165	50	26	–	85	2,326
Acquisition of subsidiaries and businesses (Notes 48 and 49)	875	1	–	549	–	1,425
Additions	33	–	6	–	34	73
Reclassification	–	–	94	–	(94)	–
At 31 December 2018	3,073	51	126	549	25	3,824
AMORTISATION						
At 1 January 2017	525	18	–	–	–	543
Charge for the year	96	2	4	–	–	102
At 31 December 2017	621	20	4	–	–	645
Charge for the year	117	2	4	19	–	142
At 31 December 2018	738	22	8	19	–	787
CARRYING VALUES						
At 31 December 2018	2,335	29	118	530	25	3,037
At 31 December 2017	1,544	30	22	–	85	1,681

Note: Right of operation and customer base are amortised on a straight-line method over the operation periods ranging from 8 to 50 years and from 15 to 50 years, respectively.

Software and technology is amortised on a straight-line method over the periods ranging from 3 to 10 years.

Development cost mainly represents expenditure incurred during the development phase of the Group's integrated energy service technologies and online LNG data platform.

21. INTERESTS IN ASSOCIATES

	2018 RMB million	2017 RMB million
Cost of investments	**2,258**	1,109
Share of post-acquisition profits, net of dividend received	**765**	370
	3,023	1,479
Deemed capital contribution		
Financial guarantee	**26**	26
	3,049	1,505

Included in the interests in associates is goodwill of approximately RMB47 million (2017: RMB49 million) arising on acquisitions of associates.

In the opinion of the Directors, none of the associates principally affected the results or net assets of the Group. To give details of the associates of the Group would, in the opinion of the Directors, result in particulars of excessive length.

The associates are accounted for using the equity method in these consolidated financial statements.

21. INTERESTS IN ASSOCIATES *(continued)*

Aggregate information of associates:

	2018 RMB million	2017 RMB million
Profit and total comprehensive income for the year	**826**	472
Group's share of profit and total income from associates for the year	**275**	129
Aggregate carrying amount of the Group's interests in these associates	**3,049**	1,505

22. INTERESTS IN JOINT VENTURES

	2018 RMB million	2017 RMB million
Cost of investments	**2,302**	2,568
Shares of post-acquisition profits, net of dividends received	**1,261**	1,304
	3,563	3,872
Deemed capital contribution		
Financial guarantee	**53**	53
Fair value adjustments on interest-free advances	**4**	4
	57	57
	3,620	3,929

Included in the interests in joint ventures is goodwill of approximately RMB192 million (2017: RMB192 million) arising on acquisitions of joint ventures.

The fair value adjustments on the interest-free advances are calculated by using an effective interest rate of 4.75% (2017: 4.75%) per annum and average terms of two years.

The joint ventures are accounted for using the equity method in these consolidated financial statements.

Details of the Group's principal joint ventures as at 31 December 2018 and 2017 are as follows:

Name of company	Form of business structure	Place of establishment/ operation	Proportion of nominal value of registered capital held by the Group 2018	2017	Principal activities
東莞新奥燃氣有限公司 ("Dongguan Xinao") (note)	Incorporated	The PRC	**55%**	55%	Investment in gas pipeline infrastructure and sales of piped gas and gas appliances
長沙新奥燃氣發展有限公司 ("Changsha Xinao") (note)	Incorporated	The PRC	**55%**	55%	Sales of piped gas

Note: The Group holds more than 50% of the registered capital of these entities but it does not have the power to appoint sufficient number of directors to control these entities and the joint venture partners in each entity control jointly on the operational and financial policies of each entity. Accordingly, these entities are classified as joint ventures of the Group.

The table above lists the joint ventures of the Group which, in the opinion of the Directors, principally affected the results or net assets of the Group. To give details of other joint ventures of the Group would, in the opinion of the Directors, result in particulars of excessive length.

22. INTERESTS IN JOINT VENTURES *(continued)*

Summarised financial information of material joint ventures

Summarised financial information in respect of the Group's material joint ventures is set out below. The summarised financial information below represents amounts shown in the joint venture's financial statements prepared in accordance with HKFRSs.

Dongguan Xinao

	2018 RMB million	2017 RMB million
Current assets	**1,399**	1,079
Non-current assets	**2,859**	2,616
Current liabilities	**2,626**	2,003
Non-current liabilities	**1**	2
Non-controlling interests	**156**	161

The above amounts of assets and liabilities include the following:

	2018 RMB million	2017 RMB million
Cash and cash equivalents	**1,012**	543
Current financial liabilities (excluding trade and other payables and provisions)	**817**	397

	2018 RMB million	2017 RMB million
Revenue	**2,797**	3,524
Profit and total comprehensive income for the year	**207**	493
Dividends received from Dongguan Xinao during the year	**144**	330

The above profit for the year include the following:

	2018 RMB million	2017 RMB million
Depreciation and amortisation	**109**	95
Interest income	**25**	22
Interest expense	**36**	30
Income tax expense	**120**	111

Reconciliation of the above summarised financial information to the carrying amount of the interest in Dongguan Xinao is recognised in the consolidated financial statements:

	2018 RMB million	2017 RMB million
Net assets of Dongguan Xinao	**1,475**	1,529
Proportion of the Group's ownership interest in Dongguan Xinao	**811**	841
Goodwill	**31**	31
Carrying amount of the Group's interest in Dongguan Xinao	**842**	872

22. INTERESTS IN JOINT VENTURES *(continued)*

Summarised financial information of material joint ventures *(continued)*

Changsha Xinao

	2018 RMB million	2017 RMB million
Current assets	1,713	1,318
Non-current assets	215	223
Current liabilities	1,180	747

The above amounts of assets and liabilities include the following:

	2018 RMB million	2017 RMB million
Cash and cash equivalents	141	15
Current financial liabilities (excluding trade and other payables and provisions)	550	230

	2018 RMB million	2017 RMB million
Revenue	2,683	2,374
Profit and total comprehensive income for the year	130	119
Dividends received from Changsha Xinao during the year	97	–

The above profit for the year include the following:

	2018 RMB million	2017 RMB million
Depreciation and amortisation	9	9
Interest income	39	29
Interest expense	30	15
Income tax expense	44	46

Reconciliation of the above summarised financial information to the carrying amount of the interest in Changsha Xinao is recognised in the consolidated financial statements:

	2018 RMB million	2017 RMB million
Net assets of Changsha Xinao	748	794
Proportion of the Group's ownership interest in Changsha Xinao	411	437
Capitalisation of financial guarantee	4	4
Carrying amount of the Group's interest in Changsha Xinao	415	441

Aggregate information of joint ventures that are not individually material:

	2018 RMB million	2017 RMB million
Profit and total comprehensive income for the year	803	377
Group's share of profit and total income from joint ventures for the year	416	169
Aggregate carrying amount of the Group's interests in these joint ventures	2,363	2,616

23. TRADE AND OTHER RECEIVABLES

	2018 RMB million	2017 RMB million
Trade receivables	**2,868**	2,651
Less: Allowance for credit losses	**(182)**	(201)
	2,686	2,450
Bills receivable (note b)	**1,786**	552
Other receivables	**339**	359
Loan receivables	**379**	314
	2,504	1,225
Less: Allowance for credit losses	**(21)**	(74)
	2,483	1,151
Deductible input value added tax and prepayment of other taxes and charges	**1,363**	902
Investment in wealth management products	**13**	275
Advances to suppliers and prepayments	**2,160**	1,473
Total trade and other receivables	**8,705**	6,251
Analysed for reporting purpose as:		
Current portion	**8,560**	6,068
Non-current portion (note a)	**145**	183

Notes:

a. The balance that the Directors expect to recover after one year from the end of the reporting period is initially recognised by using an effective interest rate of 4.75% (2017: 4.75%) per annum.

b. The bills receivable were endorsed by PRC banks for guarantee payments and the default risk is considered to be minimal.

The following is an aged analysis of trade receivables, net of allowance for credit losses presented based on invoice date at the end of the reporting period:

	2018 RMB million	2017 RMB million
Within three months	**1,905**	2,120
4 to 6 months	**164**	140
7 to 9 months	**230**	167
10 to 12 months	**171**	23
More than one year	**216**	–
	2,686	2,450

As at 31 December 2018, total bills receivable amounting to RMB1,786 million (2017:RMB552 million) are with a maturity period of less than one year.

As at 31 December 2018, included in the Group's trade receivables balance are debtors with aggregate carrying amount of RMB638 million which are past due as at 31 December 2018 and is not considered as in default because the Group is satisfied with the subsequent settlements from the debtors and the credit quality of these customers.

As at 31 December 2017, included in the Group's trade receivable balances were debtors with aggregate carrying amount of approximately RMB214 million which were past due at the end of the reporting period for which the Group had not provided for impairment loss. The Group did not hold any collateral over these balances.

Details of impairment assessment of trade and other receivables for the year ended 31 December 2018 are set out in Note 54.

23. TRADE AND OTHER RECEIVABLES *(continued)*

Aged analysis of trade receivables which are past due but not impaired as at 31 December 2017

During the year ended 31 December 2017, the Group's trade receivables are assessed not to be impaired individually. Except for certain trade receivables past due beyond one year, which the Group has fully provided impairment, no impairment has been made to the remaining receivables past due as the Group is satisfied with the subsequent settlements from the debtors and the credit quality of these customers.

	2017 RMB million
Past due within one year	214

Movements in the impairment on trade receivables as at 31 December 2017

	2017 RMB million
Balance at beginning of the year	121
Impairment losses recognised during the year	126
Amounts recovered during the year	(46)
Balance at end of the year	201

Movements in the impairment on other receivables as at 31 December 2017

	2017 RMB million
Balance at beginning of the year	9
Impairment losses recognised during the year	65
Balance at end of the year	74

During the year ended 31 December 2017, the Directors are of the opinion that except for those other receivables that are impaired, the remaining other receivables are not impaired as the counterparties are either companies controlled by non-controlling interests or companies which used equity or future dividends as a guarantee and had satisfactory repayment history.

24. FINANCIAL ASSETS/LIABILITIES AT FVTPL

	2018 RMB million	2017 RMB million
Financial assets measured at FVTPL		
Foreign currency derivative contracts (note a)	**6**	4
Commodity derivative contracts (note b)	**225**	5
Listed equity interest in Shanghai Dazhong Public Utilities (Group) Co., Ltd ("Shanghai Utilities") (note c)	**310**	–
1.13% equity interest in Sinopec Marketing Co., Ltd (note d)	**4,177**	–
Unlisted wealth management products (note e)	**49**	–
Total return swap (note f)	**463**	–
Other unlisted equity securities (note g)	**350**	–
	5,580	9
Financial liabilities measured at FVTPL		
Foreign currency derivative contracts (note a)	**(68)**	(95)
Commodity derivative contracts (note b)	**(1,075)**	(3)
	(1,143)	(98)
Analysed for reporting purpose as:		
Assets		
Current portion	**735**	4
Non-current portion	**4,845**	5
Liabilities		
Current portion	**219**	17
Non-current portion	**924**	81

Notes:

a. The Group is exposed to foreign currency risk mainly arising from various bonds and bank loans denominated in USD. To manage and mitigate the foreign exchange exposure, the Group entered into various foreign currency derivative contracts (the "Foreign Currency Derivatives") with certain financial institutions. As at 31 December 2018, the Foreign Currency Derivatives have a total notional amount of USD700 million (2017: USD1,000 million), of which the maturity dates match to the maturity dates of certain debts denominated in USD. The Foreign Currency Derivatives will enable the Group to buy USD at the predetermined RMB/USD exchange rates on the maturity dates. The Foreign Currency Derivatives are not designated as hedging instruments. Accordingly, they are classified and accounted for as financial instruments at FVTPL. The fair value gain and realised loss of approximately RMB16 million (2017: fair value loss of RMB218 million) and approximately RMB137 million (2017: RMB108 million) on the Foreign Currency Derivative were recognised during the year ended 31 December 2018.

b. The Group is exposed to commodity price risk mainly arising from various long-term sale and purchase contracts on LNG, of which the pricing of LNG is tied to crude oil prices. In order to manage and mitigate the commodity price risk, the Group entered into various commodity derivative contracts (the "Commodity Derivatives") against the underlying LNG contracts with certain financial institutions in order to stabilise its future LNG purchase costs.

   The Commodity Derivatives are not designated as hedging instruments. Accordingly, they are classified and accounted for as financial instruments at FVTPL. The fair value loss and realised gain of approximately RMB748 million (2017: fair value gain of RMB2 million) and approximately RMB3 million (2017: RMB10 million) on the Commodity Derivatives were recognised during the year ended 31 December 2018.

   Major terms of the commodity derivative contracts are as follows:

   As at 31 December 2018, the Group entered into various commodity swap or option contracts to buy or sell crude oil of approximate 41,678,000 BOE (barrel of oil equivalent) at different price levels which mainly related to Brent crude oil price. These contracts have different maturity dates between 2019 and 2023.

   As at 31 December 2017, the Group entered into various commodity swap or option contracts to buy or sell crude oil of approximate 428,000 BOE (barrel of oil equivalent) at different price levels which mainly related to Brent crude oil price. These contracts have different maturity dates between 2018 and 2021.

24. FINANCIAL ASSETS/LIABILITIES AT FVTPL *(continued)*

Notes: *(continued)*

c. The above listed investment represents 4.38% of the total issued share capital of Shanghai Utilities (1635.HK). During the year ended 31 December 2018, the fair value loss in respect of the Group's investment amounted to RMB57 million (2017: RMB46 million).

d. The above investment represents 1.13% unlisted equity interest in Sinopec Marketing Co., Ltd ("Sinopec Marketing"). During the year ended 31 December 2018, a fair value gain of approximately RMB114 million for such investment was recognised in the profit or loss and the Group received dividend income of approximately RMB341 million (2017: RMB135 million) from Sinopec Marketing.

e. During the years ended 31 December 2018 and 2017, the Group purchased certain wealth management products from financial institutions. As at 31 December 2018, the fair value in respect of the Group's investment amounted to RMB49 million.

f. On November 30, 2018, the Company entered into a total return swap ("TRS") contract with a third party financial institution and the financial institution may purchase up to 7,000,000 of the Company's equity shares based on certain limitations of market conditions and its own service excellence. The total return swap will be settled by 30 September 2019.

   Under the TRS contract, the Company will receive an amount based on the return on those shares (dividends and share price appreciation) and pay an amount based on share price depreciation and an arrangement fee. The TRS will be settled net, either in cash or in a variable number of shares. As part of the arrangement, the Group will provide HK$525 million to the financial institution in order to reduce the service charges by the financial institution. The TRS was classified as a derivative and the whole arrangement was accounted for as a financial asset at FVTPL.

g. The unlisted investments represent investments in unlisted equity securities issued by private entities incorporated in the PRC. During the year ended 31 December 2018, the fair value gains in respect of the Group's investments amounted to RMB12 million.

25. EQUITY INSTRUMENTS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	2018 **RMB million**
Unlisted equity securities	**112**

Note: The above unlisted investments represent investments in unlisted equity securities issued by private entities incorporated in the PRC. The Directors have elected to designate these investments as equity instruments at FVTOCI as they believe that the Group will hold these investments for strategic cooperation purpose and has no intention to dispose of these investments in the foreseeable future.

26. AFS FINANCIAL INVESTMENTS

	2017 RMB million
Unlisted equity securities, at cost less impairment (note)	
1.13% equity interest in Sinopec Marketing	4,003
Other unlisted equity securities	208
	4,211
Listed equity securities, at fair value	
equity interest in Shanghai Utilities	367
Unlisted wealth management products, at fair value	528
Total	5,106
Analysed for reporting purpose as:	
Current portion	528
Non-current portion	4,578

Note: The above unlisted investments represent investments in unlisted equity securities issued by private entities incorporated in the PRC. They are measured at cost less impairment at 31 December 2017 because these investments did not have a quoted market price in an active market that the Directors are of the opinion that their fair values cannot be measured reliably. Upon the adoption of HKFRS 9 on 1 January 2018, the unlisted equity securities were subsequently measured at FVTPL or FVTOCI as set out stated in Notes 24 and 25.

27. TRANSFER OF FINANCIAL ASSETS

The following were the Group's financial assets as at 31 December 2018 and 2017 that were transferred to banks or suppliers by discounting, pledging to banks or endorsing those receivables on a full recourse basis. As the Group has not transferred the significant risks and rewards relating to these receivables, it continues to recognise the full carrying amount of the receivables and the corresponding liabilities included in secured borrowings or trade payables respectively. These financial assets are carried at amortised cost in the Group's consolidated statement of financial position.

At 31 December 2018

	Bills receivable discounted or pledged to banks RMB million	**Bills receivable endorsed to suppliers RMB million**	**Total RMB million**
Carrying amount of transferred assets	**217**	**739**	**956**
Carrying amount of associated liabilities	**(217)**	**(739)**	**(956)**
	–	**–**	**–**

At 31 December 2017

	Bills receivable discounted or pledged to banks RMB million	Bills receivable endorsed to suppliers RMB million	Total RMB million
Carrying amount of transferred assets	719	538	1,257
Carrying amount of associated liabilities	(719)	(538)	(1,257)
	–	–	–

28. CONTRACT ASSETS

	31 December 2018 RMB million	1 January 2018* RMB million
Gas pipeline installation	**511**	621
Integrated energy construction contracts	**101**	61
	612	682

* The amounts in this column are after the adjustments from the application of HKFRS 9 and HKFRS 15.

29. AMOUNTS DUE FROM/TO ASSOCIATES

	2018 RMB million	2017 RMB million
Amounts due from associates:		
Current portion	**523**	367
Non-current portion	**353**	278
	876	645
Amounts due to associates:		
Current portion	**351**	282

Included in the amounts due from/to associates are trade receivables amounting to approximately RMB350 million (2017: RMB235 million) and trade payables amounting to approximately RMB17 million (2017: RMB40 million).

The aged analysis presented based on the invoice date, which approximated the respective revenue recognition date, at the end of the reporting period is as follows:

	2018 RMB million	2017 RMB million
Trade receivables due from associates		
Within three months	**228**	143
4 to 6 months	**40**	44
7 to 9 months	**12**	33
10 to 12 months	**24**	6
More than one year	**46**	9
	350	235

Owing the strategic relationship with the associates, there is no formal credit period applied to above balances by the Group and in the opinion of the Directors, the above balances are not overdue based on their repayment history.

29. AMOUNTS DUE FROM/TO ASSOCIATES *(continued)*

The amounts due from/to associates are unsecured, interest-free and repayable on demand except for the amounts due from/to associates detailed in the following table.

At 31 December 2018

	Maturity date	Effective interest rate per annum	2018 RMB million
Loan receivables from associates			
Secured	09/05/2022–30/11/2022	5.23%	**29**
Unsecured	06/03/2019–01/01/2021	4.35%–5.47%	**441**
			470
Loan payables to associates			
Savings in ENN Finance		0.35%	**264**
Unsecured	31/07/2019-24/12/2019	1.00%–4.35%	**56**
			320

At 31 December 2017

	Maturity date	Effective interest rate per annum	2017 RMB million
Loan receivables from associates			
Secured	09/05/2022–30/11/2022	5.23%	22
Unsecured	28/02/2018–03/09/2020	4.35%–5.47%	264
			286
Loan payables to associates			
Savings in ENN Finance		0.35%	163
Unsecured loan	26/05/2018	3.92%	61
			224

As at 31 December 2017, the Directors were of the opinion that the amounts due from associates were not impaired as the counterparties were financially sound.

Details of impairment assessment of amounts due from associates for the year ended 31 December 2018 are set out in Note 54.

30. AMOUNTS DUE FROM/TO JOINT VENTURES

	2018 RMB million	2017 RMB million
Amounts due from joint ventures:		
Current portion	**1,523**	943
Non-current portion	**68**	674
	1,591	1,617
Amounts due to joint ventures:		
Current portion	**1,693**	1,677
Non-current portion	**970**	–
	2,663	1,677

Included in the amounts due from joint ventures was approximately RMB87 million (2017: RMB28 million) arising from the deposits placed for purchases of gas by the Group from the joint ventures. The balance approximates its fair value and is repayable on demand.

Included in the amounts due from/to joint ventures are trade receivables amounting to approximately RMB461 million (2017: RMB379 million) and trade payables amounting to approximately RMB635 million (2017: RMB343 million) and the aged analysis presented based on invoice date, which approximated the respective revenue recognition date, is as follows:

	2018 RMB million	2017 RMB million
Trade receivables due from joint ventures		
Within three months	**357**	287
4 to 6 months	**15**	49
7 to 9 months	**16**	9
10 to 12 months	**7**	18
More than one year	**66**	16
	461	379

	2018 RMB million	2017 RMB million
Trade payables due to joint ventures		
Within three months	**584**	273
4 to 6 months	**20**	16
7 to 9 months	**9**	2
10 to 12 months	**4**	4
More than one year	**18**	48
	635	343

Owing the strategic relationship with the joint ventures, there is no formal credit period applied to above balances by the Group and the joint ventures and in the opinion of the Directors, the above balances are not overdue based on their repayment history.

30. AMOUNTS DUE FROM/TO JOINT VENTURES *(continued)*

The amounts due from/to joint ventures are unsecured, interest-free and repayable on demand except for the amounts due from/to joint ventures detailed in the following table:

At 31 December 2018

	Maturity date	Effective interest rate per annum	2018 RMB million
Loan receivables from joint ventures			
Unsecured	10/01/2019–26/09/2022	3.90%–8.00%	**716**
Secured	27/04/2019–22/01/2020	6.00%	**250**
			966
Loan payables to joint ventures			
Unsecured	04/02/2019–31/12/2021	4.35%–5.10%	**1,084**
Savings in the ENN Finance		0.35%	**794**
			1,878

At 31 December 2017

	Maturity date	Effective interest rate per annum	2017 RMB million
Loan receivables from joint ventures			
Unsecured	16/01/2018–26/09/2022	2.61%–8.00%	884
Secured	21/04/2019–22/01/2020	6.00%–6.24%	250
			1,134
Loan payables to joint ventures			
Unsecured	01/01/2018–13/08/2020	0.35%–4.35%	839
Savings in the ENN Finance		0.35%	480
			1,319

As at 31 December 2017, the Directors were of the opinion that the amounts due from joint ventures were not impaired as the counterparties were financially sound.

Details of impairment assessment of amounts due from joint ventures for the year ended 31 December 2018 are set out in Note 54.

31. AMOUNTS DUE FROM/TO RELATED COMPANIES

	2018 RMB million	2017 RMB million
Amounts due from companies controlled by a director and shareholder with significant influence	**231**	112
Amounts due to companies controlled by a director and shareholder with significant influence	**793**	642

The related companies are controlled by Mr. Wang Yusuo ("Mr. Wang") who is a director and shareholder of the Company with significant influence. The maximum amount outstanding during the year in respect of the amounts due from companies controlled by Mr. Wang is RMB418 million (2017: RMB358 million).

Included in the amounts due from related companies are trade receivables amounting to approximately RMB215 million (2017: RMB69 million) and trade payables amounting to approximately RMB760 million (2017: RMB630 million) and the aged analysis presented based on invoice date, which approximated the respective revenue recognition date, at the end of the reporting period is as follow:

	2018 RMB million	2017 RMB million
Trade receivables due from related companies		
Within three months	**132**	14
4 to 6 months	**16**	31
7 to 9 months	**13**	10
10 to 12 months	**19**	4
More than one year	**35**	10
	215	69

	2018 RMB million	2017 RMB million
Trade payables due to related companies		
Within three months	**516**	447
4 to 6 months	**115**	55
7 to 9 months	**54**	42
10 to 12 months	**17**	14
More than one year	**58**	72
	760	630

Owing the strategic relationship with the related companies, there is no formal credit period applied to above balances by the Group and in the opinion of the Directors, the above balances are not overdue.

As at 31 December 2017, the Directors were of the opinion that the amounts due from related companies were not impaired as the counterparties were financially sound.

Details of impairment assessment of amounts due from related companies for the year ended 31 December 2018 are set out in Note 54.

32. DEFERRED TAXATION

	2018 **RMB million**	2017 RMB million
Deferred tax assets	**1,159**	941
Deferred tax liabilities	**(1,001)**	(428)

The following are the major deferred tax assets and liabilities recognised and movements thereon during the years ended 31 December 2018 and 2017:

	Intangible assets RMB million	**Capitalisation of interest in property, plant and equipment** RMB million	**Undistributed retained profits of PRC entities from 1 January 2008** RMB million	**Deferred income** RMB million	**Unrealised profits** RMB million	**Equipment for one time deduction from 1 January 2018** RMB million	**Others** RMB million	**Total** RMB million
At 1 January 2017	228	145	108	(710)	(132)	–	13	(348)
Acquisition of businesses (Note 48)	39	–	–	–	–	–	–	39
Charge to profit or loss	–	19	58	54	5	–	6	142
Credit to profit or loss	(15)	(6)	(55)	(201)	(49)	–	(20)	(346)
At 31 December 2017	252	158	111	(857)	(176)	–	(1)	(513)
Acquisition of businesses (Note 48)	325	–	–	–	–	–	–	325
Charge to profit or loss	–	30	153	73	7	252	(15)	500
Credit to profit or loss	(25)	(6)	(131)	(232)	(76)	–	–	(470)
At 31 December 2018	552	182	133	(1,016)	(245)	252	(16)	(158)

Note: The amount represents deferred taxation in respect of the temporary differences attributable to the undistributed retained profits earned after 1 January 2008 by the group entities registered in the PRC. The amount has been provided based on the amount of undistributed retained profit of certain PRC entities from 1 January 2008 attributable to non-PRC parent entities at a withholding tax rate of 10% or 5% as the Directors consider the amount will be probably reversed in the foreseeable future upon distribution of profit by the respective group entities.

Deferred taxation of approximately RMB662 million (2017: RMB604 million) has not been provided for in the consolidated financial statements in respect of temporary differences attributable to undistributed retained profit of certain PRC subsidiaries as the Group is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

32. DEFERRED TAXATION *(continued)*

As at 31 December 2018, the Group has unused tax losses of approximately RMB1,252 million (2017: RMB1,096 million) available for offsetting against future profits. No deferred tax asset has been recognised in respect of the unused tax losses due to the uncertainty of future profit streams. The unrecognised tax losses will be expired in the following years ending 31 December:

	2018 **RMB million**	2017 RMB million
2018	**–**	126
2019	**125**	164
2020	**144**	278
2021	**200**	214
2022	**167**	314
2023	**616**	–
	1,252	1,096

As at 31 December 2018, the Group has other deductible temporary differences of approximately RMB562 million (2017: RMB550 million), which are mainly arising from impairment of trade and other receivables and unrealised profits within the Group. No deferred tax asset has been recognised in relation to such other deductible temporary differences as it is not probable that taxable profit will be available for offsetting against which the deductible temporary differences can be utilised.

33. DEPOSITS PAID FOR INVESTMENTS

The balance as at 31 December 2018 of RMB190 million (2017: RMB35 million) represented the deposits paid for the acquisitions of unlisted equity in the PRC which have not been completed at the end of the reporting period.

34. INVENTORIES

	2018 **RMB million**	2017 RMB million
Construction materials	**583**	459
Gas appliances	**197**	145
Natural gas	**403**	132
Other energy inventories	**26**	6
Spare parts and consumables	**2**	2
Integrated energy appliances	**120**	–
	1,331	744

The cost of inventories recognised as an expense during the year was approximately RMB41,818 million (2017: RMB33,506 million).

35. AMOUNTS DUE FROM/TO CUSTOMERS FOR CONTRACT WORK

	2017 RMB million
Contract costs incurred plus recognised profits	899
Less: Progress billings	(2,480)
	(1,581)
Analysed for reporting purposes as:	
Amounts due from customers for contract work	553
Amounts due to customers for contract work	(2,134)
	(1,581)

36. CASH AND CASH EQUIVALENTS/RESTRICTED BANK DEPOSITS

	2018 RMB million	2017 RMB million
Cash and cash equivalents	**7,923**	7,972
Restricted bank deposits		
Current portion	**62**	241
Non-current portion	**639**	486
	701	727
Bank deposits secured for:		
Letter of credit	**13**	6
Right of operation	**19**	19
Mandatory reserves in the People's Bank of China ("PBOC")	**539**	473
Energy supplies	**56**	145
Bills payable	**74**	84
	701	727

Cash and cash equivalents include bank balances with original maturities less than three months carrying interest at market rates which range from 0.3% to 3.75% (2017: 0.3% to 5.25%) per annum as at 31 December 2018. The bank balances denominated in RMB are deposited with banks in the PRC.

At the end of the reporting period, the cash and cash equivalents denominated in foreign currencies other than the functional currency of respective group entities is RMB586 million (2017: RMB 2,116 million), of which approximately RMB578 million (2017: RMB1,988 million) and approximately RMB7 million (2017: RMB116 million) are denominated in USD and Hong Kong dollar ("HK$") respectively.

As at 31 December 2018, the restricted bank deposits carry fixed interest rate ranging from 0.3% to 3.75% (2017: from 0.3% to 5.25%) per annum. Except for the amount of mandatory reserves in the PBOC, other restricted bank deposits will be released upon the settlement of bank loans, the expiry of purchase contracts or right of operation. The mandatory reserves in the PBOC classified as non-current assets are deposits placed by the ENN Finance and the reserves amount is subject to change with respect to the savings accepted by the ENN Finance and the PBOC reserve rate is adjusted from time to time.

37. TRADE AND OTHER PAYABLES

	2018 RMB million	2017 RMB million
Trade payables	**5,095**	3,182
Advances received from customers	**–**	6,569
Accrued charges and other payables	**2,008**	1,466
	7,103	11,217

The following is an aged analysis of trade payables presented based on the invoice date at the end of the reporting period.

	2018 RMB million	2017 RMB million
Within three months	**3,253**	2,678
4 to 6 months	**930**	174
7 to 9 months	**121**	72
10 to 12 months	**86**	38
More than one year	**705**	220
	5,095	3,182

The average credit period on purchases of goods is 30 to 90 days.

38. CONTRACT LIABILITIES

	Notes	31 December 2018 RMB million	1 January 2018* RMB million
Deposit for gas charges	a	**6,192**	5,270
Deposit for construction and installation contracts	b	**4,019**	3,433
Deferred income	c	**3,519**	3,095
		13,730	11,798
Analysed for reporting purpose as:			
Current		**10,490**	8,931
Non-current		**3,240**	2,867
		13,730	11,798

* The amounts in this column are after the adjustments from the application of HKFRS 15.

Contract liabilities, which are not expected to be settled within the Group's normal operating cycle, are classified as current and non-current based on the Group's earliest obligation to transfer goods or services to the customers.

The amount recognised in the current year relates to carried-forward contract liabilities were RMB7,701 million.

Notes:

a. The Group requires the customers to deposit gas charges into magnetic cards which connected to the gas meters. When the customers consume the natural gas, corresponding value of deposits will be recognised as revenue in line with the volume of gas consumed at pre-determined unit price. The deposit would be typically consumed within one year.

b. For construction and installation contracts, the Group normally receives a deposit before construction work commences. The Group continues to recognise revenue over time and apply output method in estimating the performance obligations satisfied throughout the construction and the installation period.

c. The deferred income represents connection fees and subsidies received from certain customers for the construction of main gas pipelines and related to maintaining the ongoing deliverability to supply gas at the discretion of the customers. The period to supply gas would be consistent with the operating period as stated in the right of operation.

39. DEFERRED INCOME

	Government grants RMB million	Subsidies received from customers RMB million (note a)	Connection fee received from customers RMB million (note b)	Total RMB million
GROSS				
At 1 January 2017	221	75	3,113	3,409
Additions	137	11	662	810
At 31 December 2017	358	86	3,775	4,219
Reclassified to contract liabilities	–	(86)	(3,775)	(3,861)
Acquisition of subsidiaries	5	–	–	5
Additions	231	–	–	231
At 31 December 2018	594	–	–	594
RECOGNITION				
At 1 January 2017	14	22	539	575
Release to profit or loss	11	2	203	216
At 31 December 2017	25	24	742	791
Reclassified to contract liabilities	–	(24)	(742)	(766)
Release to profit or loss	24	–	–	24
At 31 December 2018	49	–	–	49
CARRYING VALUES				
At 31 December 2018	545	–	–	545
At 31 December 2017	333	62	3,033	3,428

	2018 RMB million	2017 RMB million
Analysed for reporting purposes as:		
Current liabilities	**25**	243
Non-current liabilities	**520**	3,185
	545	3,428

Notes:

a. The balance represented the subsidies received from the customers to subsidise the construction cost of the main gas pipelines to the gas provision site and the gas storage. These customers do not restrict the Group to use the assets constructed for the use of other customers but the Group are committed to provide the gas to these customers for a period from 1 to 40 years. Accordingly, the Group has deferred the subsidies received and released to the profit or loss upon the completion of the assets over the shorter of the committed gas supply period and the useful lives of the related assets, which was reclassified to contract liabilities upon the initial application of HKFRS 15 as set out in Note 38.

b. Since 2009, the local governments in certain provinces in the PRC have issued relevant notice to the Group's subsidiaries governing the subsidiaries that an amount of the connection fee received by the Group's subsidiaries from its customers are for the construction cost of their main gas pipelines. The Directors consider that the arrangement indicates that the subsidiaries are required to maintain the ongoing deliverability to supply gas at the discretion of the customers. As the agreement under such arrangement does not specify a period for provision of the ongoing access to a supply of gas, fees received are deferred and released to the profit or loss over the estimated useful lives of the assets used to provide the ongoing service, which was reclassified to contract liabilities upon the initial application of HKFRS 15 as set out in Note 38.

40. SHARE CAPITAL

	2018 Number of shares	2017 Number of shares	2018 HK$ million	2017 HK$ million
Shares of HK$0.10 each				
Authorised:				
At beginning and end of the year	**3,000,000,000**	3,000,000,000	**300**	300
Issued and fully paid:				
At beginning of the year	**1,082,844,897**	1,081,727,397	**108**	108
Issue of shares on exercise of share options (note a)	**1,025,500**	1,124,500	**–**	–
Share repurchase (notes b & d)	**(1,419,400)**	(7,000)	**–**	–
Issue of shares on acquisition of subsidiaries (Note 48)	**39,926,534**	–	**4**	–
Issue of shares on conversion of convertible bonds (note c)	**1,625,327**	–	**–**	–
At end of the year	**1,124,002,858**	1,082,844,897	**112**	108

	2018 RMB million	2017 RMB million
Presented in consolidated financial statements as:		
At beginning of the year	**112**	112
Share repurchase (notes b & d)	**–**	–
Acquisition of subsidiaries	**4**	–
At end of the year	**116**	112

Notes:

a. During the year ended 31 December 2018, 1,025,500 shares (2017: 1,124,500 shares) were issued at the exercise price of HK$40.34 (2017: HK$40.34) per ordinary share in relation to the exercise of outstanding share options. These shares rank pari passu with the then existing shares in all respects as set out in Note 46.

b. On 4 October 2018, 5 October 2018, 8 October 2018, 11 October 2018, 12 October 2018 and 15 October 2018, the Company repurchased 200,000, 300,000, 274,500, 172,500, 272,400 and 200,000 of its own ordinary shares through the Stock Exchange. The highest price was HK$65.00 and the lowest price was HK$60.80. The aggregate consideration paid was approximately HK$89 million (equivalent to approximately RMB78 million). The above ordinary shares were cancelled on 16 November 2018. None of the Company's subsidiaries purchased, sold or redeemed any of the Company's listed securities up to 31 December 2018.

c. On 15 February 2018, the Company issued 1,625,327 ordinary shares at a price of HK$47.73 per ordinary share to satisfy the conversion rights attaching to the Convertible Bonds as set out in Note 44. The new shares rank pari passu with the existing shares in all respects.

d. On 16 May 2017, the Company repurchased 7,000 of its own ordinary shares through the Stock Exchange. The highest price was HK$38.00 and the lowest price was HK$37.85. The aggregate consideration paid was HK$265,750 (equivalent to approximately RMB236,000). The above ordinary shares were cancelled on 8 August 2017. None of the Company's subsidiaries purchased, sold or redeemed any of the Company's listed securities up to 31 December 2017.

41. BANK AND OTHER LOANS

	2018 RMB million	2017 RMB million
Bank loans		
Secured	**656**	405
Unsecured	**9,970**	1,759
	10,626	2,164
Other loans		
Unsecured	**96**	96
	96	96
	10,722	2,260
The bank and other loans are repayable:		
On demand or within one year	**8,621**	1,737
More than one year, but not exceeding two years	**189**	257
More than two years, but not exceeding five years	**1,574**	184
More than five years	**338**	82
	10,722	2,260
Less: Amounts due within one year shown under current liabilities	**(8,621)**	(1,737)
Amounts shown under non-current liabilities	**2,101**	523

As at 31 December 2018, all the bank and other loans are denominated in the functional currency of respective group entities except for approximately RMB5,319 million (2017: approximately RMB262 million) and approximately RMB478 million (2017: nil) which is denominated in USD and HK$ respectively.

The secured bank and other loans are secured by property, plant and equipment, rights to receive fee income of certain subsidiaries and joint ventures as set out in Note 53 and personal guarantee of Mr. Wang and his spouse as set out in Note 57.

41. BANK AND OTHER LOANS *(continued)*

Details of the terms of the Group's borrowings are set out below:

At 31 December 2018

	Maturity date	Effective interest rate per annum	Carrying amount RMB million
Fixed-rate borrowings			
Unsecured RMB bank loans	10/01/2019 – 29/12/2019	3.30% – 5.00%	**1,799**
Unsecured RMB other loan	12/06/2019	3.79%	**96**
Secured RMB bank loans	05/03/2019 – 25/05/2020	4.28% – 7.50%	**524**
Unsecured HK$ bank loan	06/07/2019	2.83%	**478**
Unsecured USD bank loans	03/01/2019 – 30/06/2019	3.00% – 4.31%	**3,878**
Total fixed-rate borrowings			**6,775**
Floating-rate borrowings			
Secured RMB bank loans at PBOC base rate	30/03/2020 – 23/11/2023	4.56% – 4.90%	**132**
Unsecured RMB bank loans at PBOC base rate	10/01/2019 – 07/11/2032	4.45% – 5.88%	**2,374**
Unsecured USD bank loan at London Interbank Offered Rate ("LIBOR")	30/11/2021	3.74%	**1,441**
Total floating-rate borrowings			**3,947**
Total borrowings			**10,722**

At 31 December 2017

	Maturity date	Effective interest rate per annum	Carrying amount RMB million
Fixed-rate borrowings			
Unsecured RMB bank loans	03/01/2018-11/09/2018	4.35% – 7.83%	929
Unsecured RMB other loan	12/06/2018	3.79%	96
Secured RMB bank loans	15/04/2019-27/04/2019	4.28%	200
Total fixed-rate borrowings			1,225
Floating-rate borrowings			
Secured RMB bank loans at PBOC base rate	01/06/2018-28/12/2020	4.56% – 4.99%	205
Unsecured RMB bank loans at PBOC base rate	16/08/2018-20/10/2024	5.00% – 5.88%	208
Unsecured RMB bank loans at Loan Prime Rate	19/01/2018-28/11/2018	4.13% – 4.35%	360
Unsecured USD bank loan at LIBOR	25/12/2018	4.59%	262
Total floating-rate borrowings			1,035
Total borrowings			2,260

42. CORPORATE BONDS

a. Corporate bonds issued in 2011 (the "2011 Corporate Bonds")

On 16 February 2011, a wholly-owned subsidiary of the Company, Xinao (China) Gas Investment Company Limited ("Xinao (China)"), issued corporate bonds of RMB500 million. The amount is unsecured and carries a fixed interest rate of 6.45% per annum and was repaid on 16 February 2018.

b. Corporate bonds issued in 2015 (the "2015 Corporate Bonds")

On 18 December 2015, Xinao (China) issued the 2015 Corporate Bonds of RMB2,500 million. The amount is unsecured and carries a fixed interest rate of 3.68% per annum and is repayable on 17 December 2020. The interest is payable to the holders of the bond on yearly basis. The net proceeds, after deducting the issuance costs, amounted to RMB2,489 million. The 2015 Corporate Bonds was listed on the Shanghai Stock Exchange on 2 February 2016. The 2015 Corporate Bonds was then early redeemed in full by the bondholders on 18 December 2018.

c. Corporate bonds issued in 2016 (the "2016 Corporate Bonds")

On 30 November 2016, Xinao (China) issued the 2016 Corporate Bonds of RMB2,500 million. The amount is unsecured and carries a fixed interest rate of 3.55% per annum and is repayable on 2 December 2019. The interest is payable to the holders of the bond on yearly basis. The net proceeds, after deducting the issuance costs, amounted to RMB2,490 million. The 2016 Corporate Bonds was listed on the Shanghai Stock Exchange on 13 December 2016. The effective interest rate of the 2016 Corporate Bonds is approximately 3.70% per annum after the adjustment for transaction costs.

The 2016 Corporate Bonds recognised in the consolidated statement of financial position are calculated cumulatively as follows:

	2018 **RMB million**	2017 RMB million
Principal amount	**2,500**	2,500
Issue costs	**(10)**	(10)
	2,490	2,490
Effective interest recognised	**192**	100
Interest paid/payable	**(185)**	(96)
Carrying amount at 31 December	**2,497**	2,494

43. SENIOR NOTES

On 13 May 2011, the Company issued 6% senior notes with an aggregated nominal value of USD750 million (equivalent to approximately RMB4,863 million) (the "2021 Senior Notes") at face value. The net proceeds, after deducting the issuance costs, amounted to USD735 million (equivalent to approximately RMB4,765 million). The 2021 Senior Notes will be matured on 13 May 2021. The 2021 Senior Notes are listed on the Singapore Exchange Securities Trading Limited (the "SGX-ST") and dealt in over-the-counter market through a financial institution as the principal agent.

According to the terms and conditions of the 2021 Senior Notes, at any time or from time to time prior to the maturity date, the Company may at its option to redeem the notes at a redemption price equaled to 100% of the principal amount thereof plus applicable premium and accrued and unpaid interest to such redemption date. The applicable premiums are the greater of (1) 1.0% of the principal amount and (2) the excess of (A) the present value at such redemption date of 100% of the principal amount, plus all required remaining scheduled interest payments due on the 2021 Senior Notes through the maturity date (but excluding accrued and unpaid interest to redemption date), computed using a discount rate equaled to the United States treasury rate plus 25 basis points, over (B) the principal amount on redemption date.

The fair value of the early redemption right is insignificant at initial recognition and at the end of the reporting periods. The effective interest rate is approximately 6.28% per annum after the adjustment for transaction costs.

43. SENIOR NOTES *(continued)*

The 2021 Senior Notes recognised in the consolidated statement of financial position are calculated cumulatively as follows:

	2018 **RMB million**	2017 RMB million
Nominal value of 2021 Senior Notes	**4,863**	4,863
Issue costs	**(98)**	(98)
Fair value at date of issuance	**4,765**	4,765
Repurchased (note)	**(2,603)**	(2,603)
Effective interest recognised	**1,926**	1,775
Interest paid/payable	**(1,872)**	(1,727)
Exchange loss	**275**	156
Carrying amount at 31 December	**2,491**	2,366

Note: In September 2015 and December 2016, the Company repurchased in aggregate of principal amount of USD35,000,000 and USD349,457,000 (equivalent to approximately RMB222 million and RMB2,410 million) in the open market. The principal amount of 2021 Senior Notes remaining outstanding was USD366 million as at 31 December 2018 and 2017.

44. CONVERTIBLE BONDS AT FVTPL

On 26 February 2013, the Company issued zero-coupon USD denominated convertible bonds with the aggregate principal amount of USD500 million (approximately RMB3,141 million) (the "Convertible Bonds"). Each bond would, at the option of the bondholders, be convertible into fully paid ordinary shares with a par value of HK$0.10 each in the issued and paid up capital of the Company at an initial conversion price of HK$48.62 per share. The conversion price is subject to adjustments in the manner set out in the Convertible Bonds agreement. Conversion may occur at any time on or after 8 April 2013 and up to 16 February 2018. If the Convertible Bonds have not been converted, they would be redeemed on 26 February 2018 at 102.53 per cent of their principal amount.

The Convertible Bonds, which were listed on SGX-ST and dealt in over-the-counter market through a financial institution as the principal agent, were designated as financial instrument at fair value through profit or loss and the over-the-counter market price represents the fair value of the Convertible Bonds.

In December 2017, the Company, through its conversion agent, had received conversion notices from the holders in respect of their exercise of conversion rights attaching to the Convertible Bonds in an aggregate principal amount of USD750,000. The Company had exercised its cash settlement option to satisfy the conversion rights thereof. The consideration paid by the Company was approximately USD875,000 (equivalent to approximately RMB6 million). As a result, a loss on repurchase and redemption of RMB4 million was recognised and included in other gains and losses as set out in Note 9.

During the period from 1 January 2018 to 13 February 2018, the Company, through its conversion agent, had received conversion notices from the bondholders in respect of their exercise of conversion rights attaching to the Convertible Bonds in the aggregate principal amount of USD479,250,000, representing all of the remaining outstanding Convertible Bonds as at 31 December 2017. The Company had exercised its cash settlement option to satisfy the conversion rights of the Convertible Bonds in aggregate principal amount of USD469,250,000 by paying approximately USD597,000,000 (equivalent to approximately RMB3,771 million) pursuant to the terms and conditions governing the Convertible Bonds. As a result, a gain on redemption of RMB34 million was recognised and included in other gains and losses. The Company also satisfied the conversion rights of the Convertible Bonds in aggregate principal amount of USD10,000,000 by delivery of the Company's ordinary shares of 1,625,327 at the adjusted conversion price of HK$47.73 per share pursuant to the terms and conditions governing the Convertible Bonds. All of the outstanding Convertible Bonds were delisted on SGX-ST on 20 February 2018. A fair value loss of approximately RMB249 million (2017: approximately RMB278 million) is recognised during the year ended 31 December 2018.

45. UNSECURED BONDS

On 23 October 2014, the Company issued 3.25% bonds with an aggregate nominal value of USD400 million (equivalent to approximately RMB2,460 million) (the "2019 Unsecured Bonds"). The net proceeds after discounting and deducting the issuance costs amounted to USD395 million (equivalent to approximately RMB2,429 million). The 2019 Unsecured Bonds is unsecured and will mature on 23 October 2019. The 2019 Unsecured Bonds are listed on the Stock Exchange and dealt in over-the-counter market through a financial institution as the principal agent.

On 24 July 2017, the Company issued 3.25% bonds with an aggregate nominal value of USD600 million (equivalent to approximately RMB4,066 million) (the "2022 Unsecured Bonds"). The net proceeds after discounting and deducting the issuance costs amounted to USD596 million (equivalent to approximately RMB4,037 million). The 2022 Unsecured Bonds are unsecured and will mature on 24 July 2022. The 2022 Unsecured Bonds are listed on the Stock Exchange and dealt in over-the-counter market through a financial institution as the principal agent.

According to the terms and conditions of the 2019 Unsecured Bonds and 2022 Unsecured Bonds (the "Unsecured Bonds"), the Company may at any time and from time to time, on giving not less than 30 nor more than 60 days' notice to the holders of the Unsecured Bonds, redeem the Unsecured Bonds, in whole but not in part, at a make whole price as of, with an accrued and unpaid interest, if any, to (but excluding), the redemption date. The make whole price means, with respect to a bond at the option redemption date, the amount calculated by the quotation agent that is the greater of (1) the present value of the principal amount of the Unsecured Bonds, assuming a scheduled repayment thereof on the maturity date plus all required remaining scheduled interest repayments due on such bond through the maturity date (but excluding accrued and unpaid interest to the option redemption date), computed using a discount rate equalled to the adjusted treasury rate plus 50 basis points, and (2) the principal amount of such bonds.

The estimated fair value of the early redemption right is insignificant at initial recognition and at the end of the reporting periods. The effective interest rate is approximately 3.56% per annum after deducting the adjustment for transaction costs for 2019 Unsecured Bonds and approximately 3.44% for 2022 Unsecured Bonds.

The Unsecured Bonds recognised in the consolidated statement of financial position are calculated cumulatively as follows:

	2018 **RMB million**	2017 RMB million
Nominal value of Unsecured Bonds	**6,526**	6,526
Discount cost	**(17)**	(17)
Issue costs	**(43)**	(43)
Fair value at date of issuance	**6,466**	6,466
Repurchased and cancelled in 2015	**(2,107)**	(2,107)
Effective interest recognised	**328**	179
Interest paid/payable	**(311)**	(169)
Exchange loss (gain)	**163**	(53)
Carrying amount at 31 December	**4,539**	4,316
Less: Amounts due within one year shown under current liabilities	**(443)**	–
Amounts shown under non-current liabilities	**4,096**	4,316

46. SHARE BASED PAYMENT TRANSACTIONS

a. Share award scheme

The Company has adopted a share award scheme pursuant to the board resolution of the Company dated 30 November 2018 (the "Share Award Scheme 2018").

The purpose of the Share Award Scheme 2018 is to recognise the contributions by certain employees and to incentivise them to remain with and excel in their performance for the continuing operation and development of the Group, and to attract suitable personnel for further development of the Group. Pursuant to the Share Award Scheme 2018, the Company had contracted with a trustee to establish a trust (the "Trust") on 12 March 2019. The board of the Directors (the "Board") may from time to time during the effective period of this scheme (a term of 10 years commencing on the adoption of this scheme or early terminated) contribute funds to the Trust and instruct the trustee to purchase shares of the Company on the Stock Exchange or in off-market transactions. Shares purchased and held by the Trust are non-transferrable and have no voting rights, those shares will be granted to the employees selected by the Board at no consideration and as award to the selected employees. The Board may from time to time at its discretion grant award shares to employees selected by the Board and in such a number and on and subject to such terms and conditions as it may in its absolute discretion determine, including but not limited to the vesting conditions attached and the settlement method (cash or share settlement).

The Board shall not make any further award of the shares which will result in the nominal value of the shares awarded by the Board under the Share Award Scheme 2018 exceeding 5% of the issued share capital of the Company from time to time. The maximum number of shares which may be awarded to each selected employee under the Share Award Scheme 2018 shall not exceed 1% of the issued share capital of the Company from time to time.

As of 31 December 2018 and up to the approval date of these consolidated financial statements, the Board had neither decided or selected employee nor granted any awarded shares.

b. Share option schemes

The Company has adopted share option schemes pursuant to an ordinary resolution passed at an extraordinary general meeting of the Company held on 21 May 2002 (the "Scheme 2002") and an annual general meeting of the Company held on 26 June 2012 (the "Scheme 2012").

The purpose of the share option schemes is to provide incentives for participants to perform their best in achieving the goals of the Group and allow them to enjoy the results of the Company attained through their efforts and contribution. Pursuant to the share option schemes, the Directors may, at its absolute discretion, invite any employee or executive director or any member of the Group, or any employee, partner or director of any business consultant, joint venture partner, financial adviser and legal adviser of and to any member of the Group, to take up options at HK$1 on each grant to subscribe for shares at an exercise price equal to at least the highest of (a) the closing price of the shares on the Stock Exchange on the date of grant; (b) the average closing price of the shares on the Stock Exchange for the five trading days immediately preceding the date of grant; and (c) the nominal value of a share.

The maximum number of shares in respect of which options may be granted under the share option scheme may not exceed 30% of the issued share capital of the Company from time to time. Unless approved by shareholders of the Company, the total number of shares issued and to be issued upon exercise of the options granted to each participant (including both exercised and outstanding options) in any 12-month period must not exceed 1% of the shares of the Company in issue. Where any further grant of options to a participant would result in the shares issued and to be issued upon exercise of all options granted and to be granted to such person (including exercised, cancelled and outstanding options) in the 12-month period up to and including the date of such further grant representing in aggregate over 1% of the shares in issue, such further grant must be separately approved by shareholders of the Company in general meeting with such participant and his associates abstaining from voting.

46. SHARE BASED PAYMENT TRANSACTIONS *(continued)*

b. Share option schemes *(continued)*

Scheme 2012

On 9 December 2015, the Company granted share options to the Directors and certain employees ("Grantees") to subscribe for a total of 12,000,000 ordinary shares of HK$0.1 each in the share capital of the Company under the share option scheme adopted by the Company on 26 June 2012, subject to acceptance by the Grantees.

Among the share options granted above, 2,659,000 share options were granted to the Directors to subscribe for a total of 2,659,000 shares in the Company and 9,341,000 share options were granted to certain employees of the Group to subscribe for 9,341,000 shares in the Company. Vesting of the share options is conditional upon the fulfilment of certain vesting conditions as set out in the respective offer letters of the Grantees, which may involve fulfilment of performance target.

The following tables disclose details of the Company's share options held by the employees (including the Directors) and movements in such holdings under the share option scheme during the year:

					Number of options				
	Date of grant	Vesting period	Exercise period	Exercise price	Outstanding at 1.1. 2018	Granted during the year	Exercised during the year	Forfeited during the year	Outstanding at 31.12.2018
Tranche 1	9.12.2015	9.12.2015 to 1.4.2017	1.4.2017 to 8.12.2025	HK$40.34	1,211,250	–	(511,100)	(62,500)	637,650
Tranche 2	9.12.2015	9.12.2015 to 1.4.2018	1.4.2018 to 8.12.2025	HK$40.34	2,558,750	–	(514,400)	(474,750)	1,569,600
Tranche 3	9.12.2015	9.12.2015 to 1.4.2019	1.4.2019 to 8.12.2025	HK$40.34	2,558,750	–	–	(292,250)	2,266,500
Tranche 4	9.12.2015	9.12.2015 to 1.4.2020	1.4.2020 to 8.12.2025	HK$40.34	2,558,750	–	–	(292,250)	2,266,500
					8,887,500	–	(1,025,500)	(1,121,750)	6,740,250
Exercisable at the end of the year									2,207,250
Weighted average exercise price					HK$40.34				HK$40.34

				Number of options				
	Date of grant	Exercise period	Exercise price	Outstanding at 1.1.2018	Exercised during the year	Reclassified during the year	Forfeited during the year	Outstanding at 31.12.2018
Directors	9.12.2015	1.4.2017 to 8.12.2025	HK$40.34	230,750	–	–	–	230,750
	9.12.2015	1.4.2018 to 8.12.2025	HK$40.34	538,750	–	–	–	538,750
	9.12.2015	1.4.2019 to 8.12.2025	HK$40.34	538,750	–	–	–	538,750
	9.12.2015	1.4.2020 to 8.12.2025	HK$40.34	538,750	–	–	–	538,750
Employees	9.12.2015	1.4.2017 to 8.12.2025	HK$40.34	980,500	(511,100)	–	(62,500)	406,900
	9.12.2015	1.4.2018 to 8.12.2025	HK$40.34	2,020,000	(514,400)	–	(474,750)	1,030,850
	9.12.2015	1.4.2019 to 8.12.2025	HK$40.34	2,020,000	–	–	(292,250)	1,727,750
	9.12.2015	1.4.2020 to 8.12.2025	HK$40.34	2,020,000	–	–	(292,250)	1,727,750
				8,887,500	(1,025,500)	–	(1,121,750)	6,740,250
Exercisable at the end of the year								2,207,250
Weighted average exercise price				HK$40.34				HK$40.34

46. SHARE BASED PAYMENT TRANSACTIONS *(continued)*

b. Share option schemes *(continued)*

Scheme 2012 (continued)

The following tables disclose details of the Company's share options held by the employees (including the Directors) and movements in such holdings under the share options scheme during the prior year:

	Date of grant	Vesting period	Exercise period	Exercise price	Outstanding at 1.1.2017	Granted during the year	Number of options Exercised during the year	Forfeited during the year	Outstanding at 31.12.2017
Tranche 1	9.12.2015	9.12.2015 to 1.4.2017	1.4.2017 to 8.12.2025	HK$40.34	2,828,250	–	(1,124,500)	(492,500)	1,211,250
Tranche 2	9.12.2015	9.12.2015 to 1.4.2018	1.4.2018 to 8.12.2025	HK$40.34	2,828,250	–	–	(269,500)	2,558,750
Tranche 3	9.12.2015	9.12.2015 to 1.4.2019	1.4.2019 to 8.12.2025	HK$40.34	2,828,250	–	–	(269,500)	2,558,750
Tranche 4	9.12.2015	9.12.2015 to 1.4.2020	1.4.2020 to 8.12.2025	HK$40.34	2,828,250	–	–	(269,500)	2,558,750
					11,313,000	–	(1,124,500)	(1,301,000)	8,887,500
Exercisable at the end of the year									1,211,250
Weighted average exercise price					HK$40.34				HK$40.34

	Date of grant	Exercise period	Exercise price	Outstanding at 1.1.2017	Exercised during the year	Number of options Reclassified during the year (note)	Forfeited during the year	Outstanding at 31.12.2017
Directors	9.12.2015	1.4.2017 to 8.12.2025	HK$40.34	574,250	(308,000)	(35,500)	–	230,750
	9.12.2015	1.4.2018 to 8.12.2025	HK$40.34	574,250	–	(35,500)	–	538,750
	9.12.2015	1.4.2019 to 8.12.2025	HK$40.34	574,250	–	(35,500)	–	538,750
	9.12.2015	1.4.2020 to 8.12.2025	HK$40.34	574,250	–	(35,500)	–	538,750
Employees	9.12.2015	1.4.2017 to 8.12.2025	HK$40.34	2,254,000	(816,500)	35,500	(492,500)	980,500
	9.12.2015	1.4.2018 to 8.12.2025	HK$40.34	2,254,000	–	35,500	(269,500)	2,020,000
	9.12.2015	1.4.2019 to 8.12.2025	HK$40.34	2,254,000	–	35,500	(269,500)	2,020,000
	9.12.2015	1.4.2020 to 8.12.2025	HK$40.34	2,254,000	–	35,500	(269,500)	2,020,000
				11,313,000	(1,124,500)	–	(1,301,000)	8,887,500
Exercisable at the end of the year								1,211,250
Weighted average exercise price				HK$40.34				HK$40.34

Note: Mr. Jin Yongsheng resigned from office as non-executive director of the Company on 21 March 2017. The outstanding 142,000 share options granted to him were reclassified to employees.

46. SHARE BASED PAYMENT TRANSACTIONS *(continued)*

b. Share option schemes *(continued)*

Scheme 2012 (continued)

Exercise price of the share options granted is HK$40.34 per share, which represents the highest of (i) the closing price of HK$39.00 per share as stated in the daily quotations sheet of the Stock Exchange on 9 December 2015, being the date of grant; (ii) the average closing price of HK$40.34 per share as stated in the daily quotations sheets of the Stock Exchange for the five trading days immediately preceding the date of grant; and (iii) the nominal value of the share.

During the year ended 31 December 2018, 1,121,750 (2017: 1,301,000) share options were forfeited. As at 31 December 2018, the number of outstanding share options is 6,740,250 (2017: 8,887,500), among which 4,533,000 share options have not yet vested and hence not exercisable until fulfilment of vesting condition. During the year, the Group recognised share-based payment expenses of RMB19 million (2017: RMB34 million).

The total fair value of the options calculated by using the binomial model was HK$194 million. The following assumptions were used to calculate the fair value of share options:

	Directors	Employees
Spot price	HK$39.00	HK$39.00
Exercise price	HK$40.34	HK$40.34
Risk free rate	1.555%	1.555%
Expected volatility	43.12%	43.12%
Expected dividend yield	1.08%	1.08%
Early exercise behaviour	280% of the exercise price	220% of the exercise price

The Binomial model has been used to estimate the fair value of the options. The expected volatility was determined by referencing to the historical volatility of the Company's share option price over the previous 10 years. The other variables and assumptions used in computing the fair value of the share options are based on the Directors' best estimate. Changes in variables and assumptions may result in changes in the fair value of the options.

At the end of each reporting date, the Group revises its estimates of the number of options that are expected to ultimately vest. The impact of the revision of the estimates, if any, is recognised in profit or loss, with a corresponding adjustment to the share options reserve.

Scheme 2002

On 14 June 2010, the Company granted share options to the Directors and certain employees ("Grantees") to subscribe for a total of 33,490,000 ordinary shares of HK$0.1 each in the share capital of the Company under the share option scheme adopted by the Company on 21 May 2002, subject to acceptance by the Grantees.

Among the share options granted above, 14,810,000 share options were granted to the Directors to subscribe for a total of 14,810,000 shares in the Company and 18,680,000 share options were granted to certain employees of the Group to subscribe for 18,680,000 shares in the Company.

46. SHARE BASED PAYMENT TRANSACTIONS *(continued)*

b. Share option schemes *(continued)*

Scheme 2002 (continued)

As at the end 31 December 2018 and 2017, all of outstanding share options are granted to the certain employees of the Group.

The following tables disclose details of the Company's share options held by the employees (including the Directors) and movements in such holdings under the share option scheme during the year:

	Date of grant	Vesting period	Exercise period	Exercise price	Number of options: Outstanding at 1 January 2018 and 2017	Granted during the year	Exercised during the year	Outstanding at 31 December 2018 and 2017
Tranche 1	14.6.2010	14.6.2010 to 13.12.2010	14.12.2010 to 13.6.2020	HK$16.26	–	–	–	–
Tranche 2	14.6.2010	14.6.2010 to 13.6.2012	14.6.2012 to 13.6.2020	HK$16.26	**200,000**	–	–	**200,000**
					200,000	–	–	**200,000**
Exercisable at the end of the year								**200,000**
Weighted average exercise price					**HK$16.26**			**HK$16.26**

During the current and prior year, the Group recognised no share-based payment expenses.

47. RETIREMENT BENEFITS SCHEME

	2018 RMB million	2017 RMB million
Retirement benefit scheme contribution made during the year	**215**	166

According to the relevant laws and regulations in the PRC, the PRC subsidiaries within the Group are required to contribute a certain percentage of the payrolls of their employees to the retirement benefits scheme to fund the retirement benefits of their employees. The Group operates a Mandatory Provident Fund Scheme (the "MPF Scheme") for all qualifying employees in Hong Kong. The assets of the schemes are held separately from those of the Group, in funds under the control of trustees. The Group contributes 5% of relevant payroll costs to the MPF Scheme, contribution of which is matched by employees. The maximum monthly amount of contribution is limited to HK$1,500 per employee.

48. ACQUISITION OF BUSINESSES

a. Acquisition of businesses during the year ended 31 December 2018

On 30 January 2018, the Group acquired 100% of the registered capital of 寧德利拓能源有限公司 ("Ningde") at a consideration of RMB29 million. Ningde is engaged in sales of piped gas.

On 8 February 2018, the Group acquired 55% of the registered capital of 玉田新奧燃氣有限公司 ("Yutian") at a consideration of RMB25 million. Yutian is engaged in sales of piped gas.

On 12 April 2018, the Group acquired 60% of the registered capital of 安徽省安燃燃氣有限公司 ("Anran") at a consideration of RMB96 million. Anran is engaged in sales of piped gas.

On 27 June 2018, the Group acquired further 50% of the registered capital of 聊城金奧燃氣發展有限公司 and 聊城開發區金奧能源有限公司 ("Liaocheng") at a cash consideration of RMB180 million which then became wholly owned subsidiaries of the Group from joint ventures. Liaocheng is engaged in sales of piped gas.

On 21 November 2018, the Group acquired 90% of the registered capital of 懷仁市金源天然氣有限責任公司 ("Huairen") at a consideration of RMB198 million. Huairen is engaged in sales of piped gas.

On 4 December 2018, the Group acquired 100% of the registered capital of 香港天成能源投資集團有限公司 ("Tiancheng") at a consideration of RMB108 million. Tiancheng and its subsidiaries are engaged in sales of piped gas.

On 24 December 2018, the Group acquired 100% of the registered capital of 常熟市銅業總公司有限公司 ("Changshu") at a consideration of RMB1. Changshu is engaged in sales of integrated energy.

On 29 December 2018, 東莞市新奧車用燃氣發展有限公司 ("Dongguan") amended its articles of association, which then became a subsidiary of the Group from a joint venture with no consideration. Dongguan is engaged in vehicle gas refuelling station. The Group's 55% equity interest in Dongguan had not changed subsequent to the acquisition.

Ningde, Yutian, Anran, Liaocheng, Huairen, Tiancheng, Changshu and Dongguan were acquired with the objective of expansion in market coverage of the Group's business.

On 16 August 2018 ("Completion Date"), the Group acquired 100% of the registered capital of Excellence Award Holding Company Limited ("EAH") from a company controlled by Mr. Wang. EAH and its subsidiaries (collectively referred to as "EAH Group") are principally engaged in the provision of technology solutions of multiple forms of energy in the PRC. The acquisition was made as part of the Group's strategy to accelerate its integrated energy business development, to foster new profit growth driver, facilitate its gas distribution business development, and also to eliminate continuing connected transactions between the Group and the EAH Group. The total consideration was approximately RMB2,502 million, representing issuance of 39,926,534 ordinary shares of the Company measured at closing market price on Completion Date of HK$71.35 per share. The Group incurred transaction costs of RMB22 million for this acquisition. Other than the incremental costs directly attributable to issuance of the Company's ordinary shares, all other transaction costs have been expensed and are included in administrative expenses in the consolidated statement of profit or loss.

48. ACQUISITION OF BUSINESSES *(continued)*

a. Acquisition of businesses during the year ended 31 December 2018 *(continued)*

The amounts of fair value of the assets and liabilities at the dates of acquisition are as follows:

	Dongguan & Liaocheng RMB million	**EAH Group** RMB million	**Others** RMB million
Non-current assets			
Property, plant and equipment	299	69	317
Intangible assets	250	549	488
Prepaid lease payments	16	–	36
Interests in joint ventures	20	4	–
Other receivables	–	24	–
Current assets			
Inventories	5	170	8
Trade and other receivables	60	782	70
Cash and cash equivalents	154	16	20
Restricted bank deposits	–	15	–
Contract assets	–	20	–
Amounts due from related companies	–	396	–
Current liabilities			
Trade and other payables	(216)	(678)	(223)
Bank and other loans – due within one year	–	(165)	(41)
Contract liabilities	–	(55)	–
Amounts due to related companies	–	(478)	–
Non-current liabilities			
Deferred tax liabilities	(64)	(137)	(124)
Bank and other loans – due after one year	–	(23)	(9)
Deferred income	–	(5)	–
Net assets acquired	524	504	542
Goodwill arising on acquisition			
Total consideration	180	2,502	456
Add: Non-controlling interests	87	–	120
Add: Fair value of previously held interest	281	–	–
Less: Fair value of identified net assets acquired	(524)	(504)	(542)
Goodwill arising on acquisition	24	1,998	34
Gain on remeasurement of the investments in joint ventures previously held by the Group			
Fair value of previously held interest	281	–	–
Less: Carrying amount of the equity interest	(163)	–	–
	118	–	–
Total consideration satisfied by:			
Cash	180	–	387
Consideration payables (included in other payables)	–	–	69
Issuance of the Company's ordinary shares	–	2,502	–
	180	2,502	456
Net cash (outflow) inflow arising on acquisition:			
Cash consideration paid	(180)	–	(387)
Less: Deposit paid in the prior year	–	–	21
Less: Cash and cash equivalents acquired	154	16	20
	(26)	16	(346)

48. ACQUISITION OF BUSINESSES *(continued)*

a. Acquisition of businesses during the year ended 31 December 2018 *(continued)*

Goodwill arises in the acquisition of businesses because the consideration included a control premium. In addition, the consideration paid for the acquisitions effectively included amounts in relation to the benefit of synergies, revenue growth, further market development and the assembled workforce of the businesses. These benefits are not recognised separately from goodwill as they do not meet the recognition criteria for identifiable intangible assets.

Included in the profit for the year ended 31 December 2018 is RMB119 million of profit attributable to the additional businesses generated by Ningde, Yutian, Anran, Liaocheng, Huairen, Changshu, Tiancheng, Dongguan and EAH Group. Revenue for the year ended 31 December 2018 includes RMB740 million generated from Ningde, Yutian, Anran, Liaocheng, Huairen, Changshu, Tiancheng, Dongguan and EAH Group.

Had the acquisitions of Ningde, Yutian, Anran, Liaocheng, Huairen, Changshu, Tiancheng, Dongguan and EAH Group been effected on 1 January 2018, the revenue of the Group for the year ended 31 December 2018 would have been approximately RMB61,867 million, and the profit for the year would have been approximately RMB3,869 million. The pro forma information is for illustrative purposes only and is not necessarily an indication of revenue and results of operations of the Group that would have been achieved had the acquisitions been completed on 1 January 2018, nor is intended to be a projection of future results.

In determining the 'pro-forma' revenue and profit of the Group, had Ningde, Yutian, Anran, Liaocheng, Huairen, Changshu, Tiancheng, Dongguan and EAH Group been acquired on 1 January 2018, the Directors have calculated the depreciation and amortisation of property, plant and equipment and intangible asset acquired on the basis of the fair values rather than the carrying amounts recognised in the pre-acquisition financial statements.

b. Acquisition of businesses during the year ended 31 December 2017

On 8 November 2017, the Group acquired 60% of the registered capital of 山東魯鴻天然氣有限公司 ("Luhong") at a consideration of RMB35 million. Luhong is engaged in sales of piped gas. Luhong was acquired with the objective of expansion in market coverage of business of the Group.

On 26 December 2017, the Group acquired 60% of the registered capital of 萍鄉長豐燃氣有限公司 ("Pingxiang") at a consideration of RMB84 million. Pingxiang is engaged in sales of piped gas. Pingxiang was acquired with the objective of expansion in market coverage of business of the Group.

On 27 December 2017, the Group disposed of its 11.96% equity interest in 湖南新奧清潔能源有限公司 ("Hunan Clean Energy", a former wholly-owned subsidiary of the Group) to other shareholders of 湖南三湘新奧清潔能源有限公司 ("Sanxiang") in exchange for the entire businesses held and operated by Sanxiang. Prior to this transaction, the Group held 43.35% equity interest in Sanxiang and accounted it as an associate. Sanxiang is engaged in sales of piped gas. Sanxiang was acquired with the objective of expansion of business of the Group. Subsequent to the completion of the transaction, Sanxiang was dissolved and its businesses was merged into Hunan Clean Energy.

48. ACQUISITION OF BUSINESSES *(continued)*

b. Acquisition of businesses during the year ended 31 December 2017 *(continued)*

The provisional amounts of fair value of the assets and liabilities of Luhong, Pingxiang and Sanxiang at the date of acquisition are as follows:

	Luhong RMB million	Pingxiang RMB million	Sanxiang RMB million
Non-current assets			
Property, plant and equipment	72	84	58
Prepaid lease payment	5	2	–
Intangible assets – right of operation	15	85	–
Interests in joint ventures	–	–	30
Interests in an associate	9	–	–
Current assets			
Inventories	5	4	–
Trade and other receivables	25	5	9
Cash and cash equivalents	4	5	6
Current liabilities			
Trade and other payables	(48)	(89)	(20)
Bank and other loans – due within one year	(25)	–	–
Non-current liabilities			
Deferred tax liabilities	(4)	(21)	(14)
Bank and other loans – due after one year	–	(6)	–
Net assets acquired	58	69	69
Capital injection by the Group	–	50	–
Net assets acquired including capital injection by the Group	58	119	69
Goodwill arising on acquisition (determined on a provisional basis)			
Total consideration	35	84	31
Add: Non-controlling interests	23	48	8
Add: Fair value of 43.35% equity interest of Sanxiang previously held by the Group	–	–	30
Less: Fair value of identified net assets acquired including capital injection by the Group	(58)	(119)	(69)
Goodwill arising on acquisition	–	13	–
Total consideration satisfied by:			
Cash	27	31	–
Consideration payables (included in other payables)	8	3	–
Fair value of 11.96% equity interest of Hunan Clean Energy disposed of by the Group	–	–	31
Capital injection by the Group in Pingxiang	–	50	–
	35	84	31
Net cash (outflow) inflow arising on acquisition:			
Cash consideration paid	(27)	(31)	–
Less: Cash and cash equivalents acquired	4	5	6
	(23)	(26)	6

49. ACQUISITION OF ASSETS THROUGH ACQUISITIONS OF SUBSIDIARIES

a. Acquisition of assets through acquisitions of subsidiaries during the year ended 31 December 2018

To facilitate the Group's overall business, the Group will from time to time liaise with the local PRC governments and potential vendors to acquire the local rights of operation, gas assets and integrated energy related assets by acquisition of subsidiaries. During the year ended 31 December 2018, the Group has acquired assets through the acquisitions of the following subsidiaries:

On 5 January 2018, the Group acquired 90% of the equity interest of 上海綠環加氣有限公司 at a consideration of RMB0.4 million.

On 17 April 2018, the Group acquired 70% of the equity interest of 懷化中油振宇清潔能源有限公司 at a consideration of RMB5 million.

On 21 June 2018, the Group acquired 90% of the equity interest of 天長市徐礦天然氣有限公司 at a consideration of RMB72 million.

On 11 September 2018, the Group acquired 80% of the equity interest of 葉縣東方天然氣有限公司 at a consideration of RMB17 million.

On 26 September 2018, the Group acquired 100% of the equity interest of 上海新晟文化用品有限公司 at a consideration of RMB1 million from a company controlled by Mr. Wang.

On 1 November 2018, the Group acquired 100% of the equity interest of 東營新奧燃氣有限公司 at a consideration of RMB37 million.

On 16 November 2018, the Group acquired 51% of the equity interest of 周口易聖熱力供應有限公司 at a consideration of RMB22 million.

On 28 November 2018, the Group acquired 90% of the equity interest of 商水新奧能源發展有限公司 at a consideration of RMB9 million.

On 26 December 2018, the Group acquired 100% of the equity interest of 壽光卓宇新能源有限公司 at a consideration of RMB0.2 million.

On 26 December 2018, the Group acquired 80% of the equity interest of 新鄉縣中能服熱力有限公司 at a consideration of RMB10 million.

On 28 December 2018, the Group acquired further 51% of the equity interest of 廊坊廣核開新能源服務有限公司 at a consideration of RMB33 million, which then became 90% owned subsidiary of the Group from an associate.

On 6 December 2018, a joint venture of the Group, 開封新奧中原燃氣有限公司 amended its articles of association, which then became 60% owned subsidiary of the Group.

On 17 December 2018, a joint venture of the Group, 淄博新奧燃氣有限公司 amended its articles of association, which then became 60% owned subsidiary of the Group.

49. ACQUISITION OF ASSETS THROUGH ACQUISITIONS OF SUBSIDIARIES *(continued)*

a. Acquisition of assets through acquisitions of subsidiaries during the year ended 31 December 2018 *(continued)*

The transactions were accounted for as acquisition of assets through acquisition of subsidiaries and the fair value of the considerations allocated to the assets and liabilities acquired are as follows:

	RMB million
Non-current assets	
Property, plant and equipment	223
Intangible assets – right of operation	138
Prepaid lease payments	32
Current assets	
Inventories	2
Trade and other receivables	65
Cash and cash equivalents	18
Current liabilities	
Trade and other payables	(186)
Net assets acquired	292
Less: Non-controlling interests	(52)
Less: Fair value of previously held interest	(34)
Total consideration	206
Loss on remeasurement of the investments in a joint venture previously held by the Group	
Fair value of previously held interest	4
Less: Carrying amount of the equity interest	(11)
	(7)
Total consideration satisfied by:	
Cash	150
Consideration payables (included in other payables)	56
	206
Net cash outflow arising on acquisition:	
Cash consideration paid	(150)
Less: Cash and cash equivalents acquired	18
	(132)

49. ACQUISITION OF ASSETS THROUGH ACQUISITIONS OF SUBSIDIARIES *(continued)*

b. Acquisition of assets through acquisitions of subsidiaries during the year ended 31 December 2017

To facilitate the Group's overall business, the Group will from time to time liaise with the local PRC governments and potential vendors to acquire the local rights of operation, gas assets and integrated energy related assets. During the year ended 31 December 2017, the Group has acquired assets through the acquisitions of the following subsidiaries:

On 6 April 2017, the Group acquired 93.41% of the equity interest of 炎陵新奧燃氣有限公司 ("Yanling") at a consideration of RMB32 million.

On 5 June 2017, the Group acquired 100% of the equity interest of 株洲新奧淥口燃氣有限公司 ("Lukou") at a consideration of RMB25 million.

On 16 October 2017, the Group acquired 100% of the equity interest of 亳州皖華燃氣有限公司 ("Bozhou") at a consideration of RMB53 million.

On 31 December 2017, the Group acquired 100% of the equity interest of 15 electricity wholesale companies at a consideration of RMB21 million from a company controlled by Mr. Wang.

The transactions were accounted for as acquisition of assets through acquisition of subsidiaries and the fair value of the considerations allocated to the assets and liabilities acquired are as follows:

	RMB million
Non-current assets	
Property, plant and equipment	35
Prepaid lease payment	10
Intangible assets – right of operation	57
Current assets	
Trade and other receivables	5
Cash and cash equivalents	44
Current liabilities	
Trade and other payables	(18)
Net assets acquired	133
Less: Non-controlling interests	(2)
Total consideration	131
Total consideration satisfied by:	
Cash	92
Deposit paid in the prior year	18
Consideration payables (included in other payables and amount due to related companies)	21
	131
Net cash outflow arising on acquisition:	
Cash consideration paid	(92)
Less: Cash and cash equivalents acquired	44
	(48)

50. DISPOSAL OF SUBSIDIARIES

a. Disposal of subsidiaries during the year ended 31 December 2018

On 31 January 2018, the Group disposed of 100% equity interest in Green Transportation Fuels North America LLC and ENN Canada Corporation (collectively referred to as "NA subsidiaries") at a cash consideration of USD3 million (approximately RMB18 million) to an independent third party. NA subsidiaries were classified as assets held for sale as at 31 December 2017.

On 5 June 2018, the Group disposed of 60% equity interest in 煙台新奧實業有限公司 ("Yantai Xinao") at cash consideration of RMB62 million to a joint venture. As a result, the Group lost control on Yantai Xinao and its subsidiary.

On 30 November 2018, the Group disposed of 51% equity interest in 邯鄲新奧萬合清潔能源有限公司 ("Handan Xinao") at a cash consideration of RMB10 million.

The net assets at the dates of disposal were as follow:

	NA subsidiaries RMB million	Yantai Xinao RMB million	Handan Xinao RMB million
Non-current assets			
Property, plant & equipment	47	93	27
Prepaid lease payment	–	3	–
Current assets			
Inventories	–	1	1
Trade and other receivables	5	67	18
Cash and cash equivalents	5	32	–
Current liabilities			
Trade and other payables	(42)	(98)	(15)
Taxation payable	–	(1)	–
Net assets	15	97	31
Less: Non-controlling interests	–	(35)	(16)
Net assets attributable to owners of the Company disposed of	15	62	15

50. DISPOSAL OF SUBSIDIARIES *(continued)*

a. Disposal of subsidiaries during the year ended 31 December 2018 *(continued)*

The gain (loss) on disposal recognised in profit or loss was calculated as below:

	NA subsidiaries RMB million	**Yantai Xinao** RMB million	**Handan Xinao** RMB million
Consideration received	18	62	–
Consideration receivable	–	–	10
Less: Net assets attributable to owners of the Company derecognised	(15)	(62)	(15)
Gain (loss) on disposal of subsidiaries	3	–	(5)
Net cash inflow arising from the disposal:			
Cash consideration received	18	62	–
Less: Cash and cash equivalent disposed of	(5)	(32)	–
	13	30	–

b. Disposal of a subsidiary during the year ended 31 December 2017

On 30 June 2017, the Group disposed of 100% equity interest in ENN Clean Fuels B.V. ("ENN Clean Fuels") at a cash consideration of EUR1.25 million (approximately RMB9 million) to an independent third party.

The net assets at the date of disposal were as follow:

	RMB million
Non-current assets	
Property, plant and equipment	12
Current assets	
Trade and other receivables	1
Cash and cash equivalents	1
Current liabilities	
Trade and other payables	(1)
Net assets disposed of	13

The loss on disposal of ENN Clean Fuels recognised in profit or loss was calculated as below:

	RMB million
Cash consideration received	9
Less: Goodwill disposed of	(9)
Less: Net assets disposed of	(13)
Loss on disposal of a subsidiary	(13)
Net cash inflow arising on disposal:	
Cash consideration received	9
Less: Cash and cash equivalents disposed of	(1)
	8

51. COMMITMENTS

a. Capital commitments

	2018 **RMB million**	2017 RMB million
Capital expenditure in respect of acquisition of property, plant and equipment contracted for but not provided in the consolidated financial statements	**1,113**	643
Capital commitments in respect of		
– investments in joint ventures	**212**	207
– investments in associates	**219**	86
– other equity investments	**92**	86

b. Other commitments

Since the year ended 31 December 2016, the Group has commitments to acquire LNG from certain suppliers. The delivery of LNG under such arrangements commenced in 2018 and last for 5 to 10 years. The Group is obliged to make "take-or-pay" payment to suppliers for the quantity contracted but not delivered.

In the opinion of the Directors, these LNG will be utilised to satisfy the demand of domestic natural gas consumption from both the Group's piped gas customers and wholesale customers. The Directors determined that such LNG purchase arrangements are entered into and continued to be held for the purpose of the receipt of a non-financial item in accordance with the Group's expected purchase, sale and usage. Accordingly, the LNG purchase arrangements are not considered as derivatives financial instruments within the scope of HKFRS 9 since the initial recognition.

The relevant purchase prices of these arrangements will be determined by reference to certain variables, such as petroleum price indexes prevailing at the market, and are denominated in USD. The Directors assessed the economic characteristics and risks of the embedded derivatives and concluded that they are closely related to the economic risks and characteristics of the relevant host contracts. Accordingly, the embedded derivatives are not separated from the LNG purchase arrangements as derivative financial instruments recognised in the consolidated financial statements.

52. LEASE COMMITMENTS

The Group as lessee

	2018 RMB million	2017 RMB million
Minimum lease payments paid under operating leases during the year:		
Premises	138	111
Other assets	27	10
	165	121

At the end of the reporting period, the Group had commitments for future minimum lease payments under non-cancellable operating leases in respect of rented premises which fall due as follows:

	2018 RMB million	2017 RMB million
Within one year	148	96
In the second to fifth year inclusive	347	203
Over five years	344	221
	839	520

Leases are negotiated for an average term of four years and rentals are fixed for an average of one year.

The Group as lessor

The Group's investment properties are held for rental purposes. Property rental income earned during the year was RMB13 million (2017: RMB15 million). All of the properties held have committed tenants for terms ranging from one to twenty years.

At the end of the reporting period, the Group had contracted with tenants for the following future minimum lease payments:

	2018 RMB million	2017 RMB million
Within one year	14	14
In the second to fifth year inclusive	26	24
Over five years	24	26
	64	64

53. PLEDGE OF ASSETS

At the end of the reporting period, the Group pledged certain assets as securities for bank and other loans, bill facilities and contracts granted to the Group, associates and joint ventures as follows:

	2018 RMB million	2017 RMB million
Carrying amount of:		
Property, plant and equipment	6	–
Restricted bank deposits	163	254
Prepaid lease payments	–	5
Bills receivable	217	719

In addition to the above, the Group has also pledged its rights to receive construction and installation and gas supply fee income of certain subsidiaries in favour of banks to secure banking facilities amounting to RMB810 million (2017: RMB1,320 million) granted to the Group, of which RMB432 million (2017: RMB395 million) has been utilised up to 31 December 2018.

54. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS

a. Capital risk management

The Group manages its capital to ensure that entities in the Group will be able to continue as a going concern, to maintain the confidence of creditors, to sustain future development of the entities and to maximise the return to the equity holders of the Company. The capital structure of the Group consists of net debt (borrowings disclosed in Notes 41, 42, 43, 44 and 45, net of cash and cash equivalents) and total equity of the Group.

The Group manages its capital base through net gearing ratio. The Directors review the capital structure on a semi-annual basis. The Group has a target of net gearing ratio below 100% and will maintain the ratio within target by issue of new debts, repayment of debts, issue of new shares, repurchase of shares or payment of dividends. The Group's overall strategy remains unchanged from prior year. During the years ended 31 December 2018 and 2017, the Group repurchased and redeemed certain convertible bonds and senior notes in order to better manage its net gearing ratio. The net gearing ratio at the end of the reporting period was as follows:

	2018 **RMB million**	2017 RMB million
Bank and other loans	**10,722**	2,260
Corporate bonds	**2,497**	5,490
Senior notes	**2,491**	2,366
Convertible bonds at FVTPL	**–**	3,635
Unsecured bonds	**4,539**	4,316
	20,249	18,067
Less: Cash and cash equivalents	**(7,923)**	(7,972)
Net debt	**12,326**	10,095
Total equity	**25,554**	20,217

	2018 **%**	2017 %
Net debt to total equity ratio	**48.2**	49.9

b. Categories of financial instruments

The carrying amounts of each of the following categories of financial assets and financial liabilities at the end of the reporting period are set out as follows:

	2018 **RMB million**	2017 RMB million
Financial assets		
AFS financial assets	**–**	5,106
Financial assets at FVTPL	**5,580**	9
Equity instruments at FVTOCI	**112**	–
Financial assets at amortised cost	**16,504**	–
Loans and receivables	**–**	16,510
Financial liabilities		
Financial liabilities at FVTPL	**1,143**	3,733
Financial liabilities at amortised cost	**31,159**	21,719
Financial guarantee liability	**–**	5

54. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies

The Group's major financial instruments include trade and other receivables, contract assets, equity investments, financial assets/liabilities at FVTPL, amounts due from/to associates, joint ventures and related companies, cash and cash equivalents, restricted bank deposits, trade and other payables, contract liabilities, bank and other loans, corporate bonds, senior notes, convertible bonds at FVTPL, unsecured bonds and financial guarantee liability. Details of these financial instruments are disclosed in respective notes. The risks associated with these financial instruments include market risk (including foreign currency risk, interest rate risk, commodity price risk and other price risk), credit risk and liquidity risk.

Foreign currency risk management

The functional currency of the Group's most entities is RMB in which most of the transactions are denominated. However, certain loans, senior notes, unsecured bonds and convertible bonds issued by the Group, receivables and payables and certain bank balances kept by the Group are denominated in foreign currencies.

To mitigate the foreign exchange exposure, the Group entered into various Foreign Currency Derivatives with certain financial institutions during the current and prior years as set out in Note 24. The Group currently does not have a foreign currency hedging policy. However, the management of the Group monitors foreign exchange exposure and will consider to hedge its foreign exchange exposure should the need arises.

The carrying amounts of the Group's foreign currency denominated monetary assets and monetary liabilities at the end of the reporting period are as follows:

	Assets		**Liabilities**	
	2018	2017	**2018**	2017
	RMB million	RMB million	**RMB million**	RMB million
Foreign currency:				
USD	**578**	1,988	**12,349**	10,579
HK$	**7**	116	**478**	–

The following table details the Group's sensitivity to a reasonable possible change in exchange rate of each foreign currency against RMB, while all other variables are held constant. The sensitivity analysis includes only outstanding monetary items denominated in foreign currency without considering the impact of the Foreign Currency Derivatives and adjusts their translations at the end of the reporting period for a change in foreign currency exchange rate as set out below:

	USD		**HK$**	
	2018	2017	**2018**	2017
	%	%	**%**	%
Possible change in foreign exchange rate	**5**	5	**5**	5

	2018	2017	**2018**	2017
	RMB million	RMB million	**RMB million**	RMB million
(Decrease) increase in profit after taxation for the year:				
– if RMB weakens against foreign currencies	**(592)**	(439)	**(24)**	6
– if RMB strengthens against foreign currencies	**592**	439	**24**	(6)

In the opinion of the Directors, the sensitivity analysis is unrepresentative of the inherent foreign exchange risk as the year end exposure and does not reflect the exposure during the year, and some of the Group's foreign currency exposure has been reduced due to the offsetting effect of the Foreign Currency Derivatives.

54. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Interest rate risk management

The Group does not have any specific interest rate hedging policy except that the Group would regularly review the market interest rates to capture the potential opportunities to reduce the cost of borrowings. Accordingly, the Group will enter into interest rate swap arrangement to mitigate the interest rate risk if appropriate.

Fair value interest rate risk

The Group's fair value interest rate risk relates primarily to non-current amounts due from associates and joint ventures, and fixed-rate bank and other loans, corporate bonds, senior notes and unsecured bonds (see Notes 29, 30, 41, 42, 43 and 45 for details of these amounts, loans, bonds and notes respectively).

The fair value interest rate risk on bank balance and deposits is insignificant as the terms of the fixed deposits are relatively short.

Cash flow interest rate risk

The Group's cash flow interest rate risk relates primarily to floating-rate bank loans (see Note 41 for details of these amounts). The Directors consider that the Group is not exposed to significant cash flow interest rate risk relating to bank deposits, which are primarily short term in nature and basically carried at stable market interest rates.

The Group's sensitivity to cash flow interest rate risk has been determined based on the exposure to interest rates for the floating-rate bank loans. The analysis is prepared assuming that the amount of liabilities outstanding at the end of the reporting period was outstanding for the whole year and excluding the interest expected to be capitalised.

	2018 **%**	2017 %
Reasonably possible change in interest rate	**50 basis points**	50 basis points

	2018 **RMB million**	2017 RMB million
(Decrease) increase in profit after taxation for the year		
– as a result of increase in interest rate	**(15)**	(4)
– as a result of decrease in interest rate	**15**	4

The possible change in the interest rate does not affect the equity of the Group in both years.

Commodity price risk

In the normal course of business, the Group imported LNG to satisfy the demands of downstream customers under long-term "take-or-pay" purchase agreements as set out in Note 51. Accordingly, the Group is exposed to fluctuations in prevalent crude oil/gas market prices, which are used for the determination of the price of LNG. This exposure is managed with the use of derivative financial instruments by the Group. The profit or loss generated from these derivatives is dependent on the combination of contracts which generate payoffs in any particular range of commodity prices.

Derivative financial instruments are used solely for financial risk management purposes and the Group does not hold or issue derivative financial instruments for speculation purposes. The management of the Group monitors commodity price risk exposure regularly and will consider to hedge its commodity price risk exposure should the need arises.

54. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Commodity price risk (continued)

Sensitivity analysis on commodity derivative contracts

A decrease of 5% in relevant commodity prices at the end of the year ended 31 December 2018 and 2017 would have affected profit or loss for the years by amount shown below. These amounts represent the change in fair value of commodity derivative contracts at the reporting date.

	2018 **RMB million**	2017 RMB million
Profit or loss	**(194)**	(2)

Other price risk

The Group is mainly exposed to price risk through equity instrument measured at FVTPL and FVTOCI. The Directors do not implement specific measurements to mitigate the price risk.

If the market price of equity instrument measured at FVTPL and FVTOCI increased or decreased by 5%, the Group would recognise additional gains or losses of RMB247 million (2017: RMB 45 million) respectively.

Credit risk and impairment assessment

As at 31 December 2018, other than those financial assets whose carrying amounts best represent the maximum exposure to credit risk, the Group's maximum exposure to credit risk which will cause a financial loss to the Group arising from the amount of financial guarantees provided by the Group. The Group does not hold any collateral or other credit enhancements to cover its credit risks associated with its financial assets, except that the credit risks associated with loan receivables is mitigated because they are secured over equipment, receivables and certain entities' equities and settlement of certain trade receivables are backed by bills issued by reputable financial institutions.

Trade receivables and contract assets arising from contracts with customers

In order to minimise the credit risk, the management of the Group has delegated a team responsible for determination of credit limits and credit approvals. Other monitoring procedures are in place to ensure that follow-up action is taken to recover overdue debts. In addition, the Group performs impairment assessment under ECL model upon application of HKFRS 9 (2017: incurred loss model) on trade balances based on provision matrix.

Other receivables, amount due from associates/joint ventures/related companies and bank balances

In order to minimise the credit risk, the Group performs impairment assessment under ECL model upon application of HKFRS 9 (2017: incurred loss model) on other receivables, amounts due from associates/joint ventures/related companies individually. Other monitoring procedures are in place to ensure that follow-up action is taken to recover overdue debts.

The credit risks on bank balances are limited because the counterparties are reputable international and PRC banks and other financial institutions with high credit ratings assigned by international credit-rating agencies regulated by the PRC government.

Other than concentration of credit risk on liquid funds which are deposited with several banks with high credit ratings, the Group does not have any other significant concentration of credit risk.

54. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Credit risk and impairment assessment (continued)

The tables below detail the credit risk exposures of the Group's financial assets, which are subject to ECL assessment:

2018	Notes	External credit rating	Internal credit rating	12-month or lifetime ECL	Gross carrying amount RMB million
Financial assets at amortised cost					
Amounts due from associates*	29	N/A	(note a)	12-month ECL	536
				Lifetime ECL (not credit impaired)	355
					891
Amounts due from joint ventures*	30	N/A	(note a)	12-month ECL	1,155
				Lifetime ECL (not credit impaired)	465
					1,620
Amounts due from related companies*	31	N/A	(note a)	12-month ECL	16
				Lifetime ECL (not credit impaired)	219
					235
Restricted bank deposits	36	AA	N/A	12-month ECL	701
Bank balances	36	AA+	N/A	12-month ECL	7,923
Other receivables	23	N/A	(note a)	12-month ECL	339
Loan receivables	23	N/A	(note a)	12-month ECL	379
Trade receivables	23	N/A	(note b)	Lifetime ECL (provision matrix)	2,680
				Lifetime ECL (not credit impaired)	143
				Credit-impaired	45
					2,868
Bills receivable	23	N/A	(note a)	12-month ECL	1,786
Contract assets	28	N/A	(note b)	Lifetime ECL (provision matrix)	636
				Credit-impaired	2
					638

* The gross carrying amounts disclosed above include both trade nature receivables and non-trade nature receivables. All trade nature receivables are applying lifetime ECL.

54. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Credit risk and impairment assessment (continued)

Notes:

a. For the purposes of internal credit risk management, the Group uses past due information to assess whether credit risk has increased significantly since initial recognition.

	Past due	**Not past due/ No fixed terms of repayment**	**Total**
	RMB million	RMB million	RMB million
Amounts due from associates	–	891	891
Amounts due from joint ventures	–	1,620	1,620
Amounts due from related companies	–	235	235
Bills receivable	–	1,786	1,786
Other receivables	–	339	339
Loan receivables	–	379	379

b. For trade receivables and contract assets, the Group has applied the simplified approach in HKFRS 9 to measure the loss allowance at lifetime ECL. Except for debtors with significant outstanding balances, the Group determines the expected credit losses on these items by using a provision matrix, grouped by past due status.

As part of the Group's credit risk management, the Group uses debtors' aging to assess the impairment for its customers in relation to its operation because these customers consist of a large number of small customers with common risk characteristics that are representative of the customers' abilities to pay all amounts due in accordance with the contractual terms. The following table provides information about the exposure to credit risk for trade receivables and contract assets which are assessed based on provision matrix as at 31 December 2018 within lifetime ECL.

	Average loss rate	**Trade receivables and contract assets**
		RMB million
Gross carrying amount		
Within three months	0.41%	2,349
4 to 6 months	7.10%	262
7 to 9 months	8.60%	315
10 to 12 months	10.52%	81
1 to 2 years	24.46%	199
2 to 3 years	37.50%	110
		3,316

The estimated loss rates are estimated based on historical observed default rates over the expected life of the debtors and are adjusted for forward-looking information that is available without undue cost or effort. The grouping is regularly reviewed by management to ensure relevant information about specific debtors is updated.

54. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Credit risk and impairment assessment (continued)

As at 31 December 2018, the Group provided RMB130 million and RMB24 million impairment allowance for trade receivables and contract assets respectively, based on the provision matrix. Impairment allowance of RMB52 million and RMB2 million were made on debtors with significant balances for trade receivables and contract assets respectively.

The following table shows reconciliation of loss allowances that have been recognised for trade receivables, contract assets, bills receivables, other receivables, amounts due from associates, joint ventures, related companies.

	12-month ECL RMB million	Lifetime ECL (not credit-impaired) RMB million	Lifetime ECL (credit-impaired) RMB million	Total RMB million
As at 31 December 2017 under HKAS 39	–	–	275	275
Adjustment upon application of HKFRS 9	28	50	(75)	3
As at 1 January 2018 under HKFRS 9	28	50	200	278
Changes due to financial instruments recognised				
– Transfer to credit-impaired	–	(3)	3	–
– Impairment losses recognised	39	65	51	155
– Impairment losses reversed	(28)	(48)	(15)	(91)
– Eliminated on disposal of subsidiaries	–	–	(65)	(65)
As at 31 December 2018	39	64	174	277

The Group writes off a trade receivable when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, whichever occurs earlier.

Liquidity risk management

To manage the liquidity risk, the Group reviews the level of cash and cash equivalents to ensure their adequacy to finance the Group's operations, capital expansion plans and mitigate the effects of fluctuation in cash flows. The Group also reviews the utilisation of borrowings and ensures the compliance of loan covenants.

The Group relies on various bonds and bank and other loans as a significant source of liquidity, detail of which are set out in Notes 41, 42, 43 and 45. A subsidiary of the Group has been approved to issue corporate bonds amounting to RMB5,000 million by China Securities Regulatory Commission on 10 December 2018 and issued the 3-year corporate bonds of RMB500 million in January 2019 and RMB1,000 million in March 2019. Except for the unutilised issuance quota of the corporate bonds, the Group has unutilised credit facilities of approximately RMB8,779 million (2017: RMB6,509 million) at the date of approval of the consolidated financial statements, of which approximately RMB5,574 million (2017: RMB5,500 million) are subject to renewal within twelve months from the end of the reporting period as set out in Note 2.

54. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Liquidity risk management (continued)

The following table details the Group's remaining contractual maturity for its financial liabilities based on the agreed repayment terms. The table has been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows. To the extent that interest flows are carried at floating rate, the undiscounted amount is derived from interest rate existed at the end of the reporting period.

	Weighted average interest rate	Repayable on demand or within one year	Within the second year	Within the third year	Within the fourth year	Within the fifth year	Over five years	Total undiscounted cash flows	Carrying amount at end of the reporting period
	%	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
At 31 December 2018									
Non-derivative financial liabilities									
Trade and other payables		7,103	–	–	–	–	–	7,103	7,103
Amounts due to associates	0.35	351	–	–	–	–	–	351	351
Amounts due to joint ventures	4.50	1,739	46	1,016	–	–	–	2,801	2,663
Amounts due to related companies		793	–	–	–	–	–	793	793
Bank and other loans									
– fixed rate	3.98	6,768	102	–	–	–	–	6,870	6,775
– variable rate	4.68	2,092	167	1,600	64	67	386	4,376	3,947
Corporate bonds	3.55	2,589	–	–	–	–	–	2,589	2,497
Senior notes	6.00	151	151	2,584	–	–	–	2,886	2,491
Unsecured bonds	3.25	593	134	134	4,252	–	–	5,113	4,539
Financial guarantee contracts		203	–	–	–	–	–	203	–
		22,382	600	5,334	4,316	67	386	33,085	31,159
Derivatives									
–inflow		(719)	(159)	(487)	(4,252)	–	–	(5,617)	
–outflow		1,002	492	711	4,350	3	–	6,558	

54. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

c. Financial risk management objectives and policies *(continued)*

Liquidity risk management (continued)

	Weighted average interest rate %	Repayable on demand or within one year RMB million	Within the second year RMB million	Within the third year RMB million	Within the fourth year RMB million	Within the fifth year RMB million	Over five years RMB million	Total undiscounted cash flow RMB million	Carrying amount at end of the reporting period RMB million
At 31 December 2017									
Non-derivative financial liabilities									
Trade and other payables		4,648	–	–	–	–	–	4,648	4,648
Amounts due to associates	0.35	283	–	–	–	–	–	283	282
Amounts due to joint ventures	4.35	1,710	–	–	–	–	–	1,710	1,677
Amounts due to related companies		642	–	–	–	–	–	642	642
Bank and other loans									
– fixed rate	4.36	1,034	203	–	–	–	–	1,237	1,225
– variable rate	4.62	755	74	97	66	46	82	1,120	1,035
Corporate bonds	3.55-6.45	3,213	2,589	–	–	–	–	5,802	5,490
Senior notes	6.00	143	143	143	2,460	–	–	2,889	2,366
Unsecured bonds	3.25	141	564	127	127	3,793	–	4,752	4,316
Convertible bonds at FVTPL		3,592	–	–	–	–	–	3,592	3,635
Financial guarantee contracts		126	–	–	–	–	–	126	5
		16,287	3,573	367	2,653	3,839	82	26,801	25,321
Derivatives									
–inflow		(2,741)	(129)	(130)	(128)	(4,048)	–	(7,176)	
–outflow		2,804	185	184	184	4,201	–	7,558	

The amounts included above for financial guarantee contracts are the maximum amounts the Group could be required to settle under the arrangement for the full guaranteed amount if that amount is claimed by the counterparty to the guarantee. Based on the expectations at the end of the reporting period, the Group considers that it is more likely than not that no amount will be payable under the arrangement. However, these estimates are subject to change depending on the probability of the counterparties claiming under the guarantee in case that the financial receivables held by the counterparty suffer credit losses.

The amounts included above for variable interest rate instruments for non-derivative financial liabilities is subject to change if changes in variable interest rates differ to those estimates of interest rates determined at the end of the reporting period.

The contractual expiry periods of financial guarantee contracts at the end of the reporting period are as follows:

	2018		2017	
	RMB million	**Expiry period**	RMB million	Expiry period
Guarantees issued to banks to secure loan facilities granted to joint ventures	**203**	**2025**	126	2020

54. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

d. Fair value measurement of financial instruments

(i) Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis

The Group measures its following financial instruments at fair value at the end of the reporting period on a recurring basis:

	Fair value as at 31 December		Fair value hierarchy	Valuation technique and key input
	2018 RMB million	2017 RMB million		
Financial assets				
Derivative financial instruments	**231**	9	Level 2	Discounted cash flow for swap Future cash flows are estimated based on forward commodity price and forward exchange rates at settlement date, contracted strike rate, cap rate and premium payment, discounted at the swap curves expected by various counterparties Black-Scholes Model for option Fair value estimated based on strike price, commodity price, time to expiration, volatility and risk-free interest rate
Listed equity securities, equity interest in Shanghai Utilities	**310**	367	Level 1	Fair values are derived from quoted bid prices in an active market
Unlisted wealth management products	**49**	528	Level 3	Discounted cash flow Future cash flows are estimated based on the recoverable amount expected, discounted at a rate that reflects the credit risk of the counterparty
1.13% equity interest in Sinopec Marketing	**4,177**	N/A	Level 3	Estimated based on the P/B ratio of comparable listed companies and a liquidity discount
Total return swap	**463**	N/A	Level 2	Fair value is with reference to the similar assets' quoted price in an active market.
Other unlisted equity securities – FVTPL	**350**	N/A	Level 3	Fair value is derived from price multiples of similar assets that have been traded in the market
Unlisted equity securities – FVTOCI	**112**	N/A	Level 3	Fair values are derived from the fair value of the underlying assets and liabilities held by the investee
Financial liabilities				
Convertible Bonds at FVTPL	**–**	3,635	Level 2	Fair values are derived from quoted prices in an over-the-counter market
Derivative financial instruments	**1,143**	98	Level 2	Discounted cash flow for swap Future cash flows are estimated based on forward commodity price and forward exchange rates at settlement date, contracted strike rate, cap rate and premium payment, discounted at the swap curves expected by various counterparties Black-Scholes Model for option Fair value estimated based on strike price, commodity price, time to expiration, volatility and risk-free interest rate

54. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS *(continued)*

d. Fair value measurement of financial instruments *(continued)*

(i) Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis (continued)

The Group's 1.13% equity interest in Sinopec Marketing which is classified as financial assets at FVTPL under Level 3 hierarchy amounted to RMB4,177 million as at 31 December 2018 under HKFRS 9. The significant unobservable input is the liquidity discount rate. The higher liquidity discount rate, the lower fair value of the financial assets at FVTPL will be. A 5% increase/decrease in the liquidity discount rate, holding all other variables constant, the fair value of the investments would decrease/increase by RMB21 million as at 31 December 2018.

(ii) Fair value of the Group's financial assets and financial liabilities that are not measured at fair value on a recurring basis

Except as detailed in the following table, the Directors consider that the carrying amounts of financial liabilities recorded at amortised cost in the consolidated statement of financial position approximate their fair values:

	2018		2017	
	Carrying amount RMB million	**Fair value RMB million**	Carrying amount RMB million	Fair value RMB million
Fixed-rate bank and other loans	**6,775**	**6,599**	1,225	1,215
Senior notes	**2,491**	**2,622**	2,366	2,757
Unsecured bonds	**4,539**	**4,456**	4,316	4,322
Corporate bonds	**2,497**	**2,500**	5,490	5,509

In the above table, other than the fair values of bank loans disclosed which are under the fair value hierarchy of Level 3, the rest of the fair values disclosed are under the fair value hierarchy of Level 2. The fair values of the senior notes and unsecured bonds are derived from the quoted prices in an over-the-counter market, and the fair values of corporate bonds are derived from the inactive quoted prices in the Shanghai Stock Exchange. The fair values of the rest of the financial liabilities at amortised cost are derived from discount cash flow technique by reference to the market interest rate of the loans with comparable maturity and credit risk of the respective group entities at the end of the reporting period.

55. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

The table below details changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be classified in the Group's consolidated statement of cash flows as cash flows from financing activities.

	Bank and other loans RMB million (Note 41)	Convertible bonds RMB million (Note 44)	Corporate bonds RMB million (Note 42)	Unsecured bonds RMB million (Note 45)	Senior notes RMB million (Note 43)	Others RMB million (note)	Total RMB million
At 1 January 2018	**2,260**	**3,635**	**5,490**	**4,316**	**2,366**	**1,705**	**19,772**
Financing cash flows	**7,852**	**(3,771)**	**(3,000)**	**–**	**–**	**(2,249)**	**(1,168)**
Acquisition of subsidiaries	**238**	**–**	**–**	**–**	**–**	**–**	**238**
Fair value adjustments	**–**	**249**	**–**	**–**	**–**	**–**	**249**
Foreign exchange translation	**372**	**–**	**–**	**216**	**119**	**–**	**707**
Gain on repurchase and redemption of convertible bonds	**–**	**(34)**	**–**	**–**	**–**	**–**	**(34)**
Issue of shares on conversion of convertible bonds	**–**	**(79)**	**–**	**–**	**–**	**–**	**(79)**
Dividends paid to shareholders	**–**	**–**	**–**	**–**	**–**	**952**	**952**
Interest expense	**–**	**–**	**7**	**7**	**6**	**468**	**488**
At 31 December 2018	**10,722**	**–**	**2,497**	**4,539**	**2,491**	**876**	**21,125**

	Bank and other loans RMB million (Note 41)	Convertible bonds RMB million (Note 44)	Corporate bonds RMB million (Note 42)	Medium-term notes RMB million	Unsecured bonds RMB million (Note 45)	Senior notes RMB million (Note 43)	Others RMB million (note)	Total RMB million
At 1 January 2017	4,141	3,515	5,482	700	446	2,507	1,760	18,551
Financing cash flows	(1,890)	(158)	–	(700)	4,037	–	(1,294)	(5)
Acquisition of a subsidiary	31	–	–	–	–	–	–	31
Fair value adjustments	–	278	–	–	–	–	–	278
Foreign exchange translation	(22)	–	–	–	(170)	(146)	–	(338)
Dividends paid to shareholders	–	–	–	–	-	–	775	775
Interest expense	–	–	8	–	3	5	464	480
At 31 December 2017	2,260	3,635	5,490	–	4,316	2,366	1,705	19,772

Note: The amounts include the interest payables, non-trade payables due to joint ventures, associates and related companies.

56. MAJOR NON-CASH TRANSACTIONS

During the year, the Company issued 39,926,534 ordinary shares to settle the consideration for acquisition of EAH. Further details of the acquisition is set out in Note 48.

57. RELATED PARTY TRANSACTIONS

Apart from the related party balances as stated in Notes 29, 30 and 31 and the equity transactions as stated in Notes 48, 49 and 50, the Group had the following transactions with certain related parties:

	2018 **RMB million**	2017 RMB million
Nature of transaction		
Associates:		
– Sales of gas to	**482**	355
– Sales of materials to	**237**	288
– Purchase of gas from	**311**	235
– Purchase of equipment from	**–**	1
– Loan interest received from	**22**	10
– Provision of gas transportation services to	**–**	3
– Provision of gas transportation services from	**9**	14
– Lease of vehicles to	**1**	–
– Deposit interest paid to	**2**	2
– Provision of supporting services by	**–**	1
– Provision of supporting services to	**2**	1
Joint ventures:		
– Sales of gas to	**1,580**	1,234
– Sales of materials to	**220**	125
– Purchase of gas from	**3,308**	2,454
– Provision of gas transportation services to	**379**	362
– Loan interest received from	**60**	63
– Loan interest paid to	**36**	40
– Provision of construction and installation services to	**–**	80
– Provision of supporting services to	**33**	7
– Purchase of equipment from	**6**	4
– Deposit interest paid to	**12**	9
– Provision of proprietary services to	**20**	30
– Provision of construction services by	**29**	33
– Provision of gas transportation services by	**–**	1
– Provision of supporting services by	**2**	1
– Lease of premises from	**1**	1
– Lease of vehicles to	**2**	2

57. RELATED PARTY TRANSACTIONS *(continued)*

	2018 **RMB million**	2017 RMB million
Companies controlled by Mr. Wang:		
Transactions exempt from shareholders' approval under Chapter 14A of the Listing Rules:		
– Provision of energy efficiency technology services by	**188**	218
– Purchase of equipment from	**122**	26
– Provision of construction services by	**1,079**	861
– Provision of information technology services by	**279**	256
– Purchase of LNG from	**669**	12
Transactions fully exempt from shareholders' approval, annual review and all disclosure requirements under Chapter 14A of the Listing Rules:		
– Sales of gas, gasoline and diesel to	**12**	8
– Sales of materials to	**42**	31
– Provision of construction and installation services to	**11**	11
– Provision of property management services by	**17**	16
– Provision of property management services to	**–**	1
– Lease of premises to	**3**	4
– Lease of premises from	**3**	4
– Provision of supporting services by	**56**	64
– Provision of supporting services to	**9**	3
– Purchase of outsourcing services from	**44**	31
– Provision of electronic business services by	**1**	1
– Provision of technology services to	**42**	4
– Purchase of property from	**–**	23

The Company issued senior notes on 13 May 2011, unsecured bonds on 23 October 2014 and 24 July 2017 and entered into a club loan agreement with various banks on 23 November 2018. The terms and conditions of these debts require Mr. Wang to retain certain percentage of shareholding over the Company, failing which the Company would be required to repay or repurchase all outstanding debts at predetermined prices.

Compensation of key management personnel

The remuneration of the Directors who are also the members of key management personnel during the years ended 31 December 2018 and 2017 was disclosed in Note 12.

Financial guarantee contracts

As at 31 December 2018, the guaranteed facilities amount utilised by the joint ventures were RMB203 million. In the opinion of the Directors, the fair values of the financial guarantee contracts of the Group issued during the year ended 31 December 2018 were insignificant at the date of issue of the financial guarantee and no provision is necessary. In addition, the Directors do not consider it probable that a claim will be made against the Group under any of these guarantees.

In 2018, Mr. Wang and Ms. Zhao Baoju, spouse of Mr Wang have provided personal guarantees to the Group to the extent of RMB620 million (2017: nil).

58. PARTICULAR OF PRINCIPAL SUBSIDIARIES

Name of Company	Place of incorporation/ establishment	Issued and fully paid share capital/ registered capital	Proportion of ownership interest/voting power held by the Group 2018	2017	Principal activities
ENN Gas Investment Group Limited ("ENN Gas")	British Virgin Island	USD1,000	**100.00%**	100.00%	Investment holding
北京新奧華鼎貿易有限公司 Beijing Xinao Huading Trading Company Limited#	PRC	USD23,800,000	**100.00%**	100.00%	Retail of gas pipelines, related materials and equipment
長沙新奧燃氣有限公司 Changsha Xinao Gas Company Limited*	PRC	RMB120,000,000	**55.00%**	55.00%	Investment in gas pipeline infrastructure and sales of piped gas
常州新奧燃氣發展有限公司 Changzhou Xinao Gas Development Company Limited*	PRC	USD600,000	**60.00%**	60.00%	Sales of piped gas
常州新奧燃氣工程有限公司 Changzhou Xinao Gas Engineering Company Limited*	PRC	USD5,000,000	**60.00%**	60.00%	Investment in gas pipeline infrastructure
滁州新奧燃氣有限公司 Chuzhou Xinao Gas Company Limited*	PRC	USD7,100,000	**90.00%**	90.00%	Sales of piped gas
泉州市燃氣有限公司 Quanzhou City Gas Company Limited ("Quanzhou City Gas")	PRC	RMB450,000,000	**60.00%**	60.00%	Investment in gas pipeline infrastructure and sales of piped gas
晉江新奧燃氣有限公司 Jinjiang Xinao Gas Company Limited	PRC	RMB60,000,000	**60.00%**	60.00%	Investment in gas pipeline infrastructure and sales of piped gas
洛陽新奧華油燃氣有限公司 Luoyang Xinao Huayou Gas Company Limited*	PRC	RMB160,000,000	**70.00%**	70.00%	Investment in gas pipeline infrastructure and sales of piped gas
石家莊新奧燃氣有限公司 Shijiazhuang Xinao Gas Company Limited* ("Shijiazhuang Xinao")	PRC	RMB300,000,000	**60.00%**	60.00%	Investment in gas pipeline infrastructure and sales of piped gas
肇慶新奧燃氣有限公司 Zhaoqing Xinao Gas Company Limited#	PRC	RMB52,700,000	**100.00%**	100.00%	Investment in gas pipeline infrastructure and sales of piped gas
株洲新奧燃氣有限公司 Zhuzhou Xinao Gas Company Limited*	PRC	RMB135,000,000	**55.00%**	55.00%	Investment in gas pipeline infrastructure
湘潭新奧燃氣有限公司 Xiangtan Xinao Gas Company Limited*	PRC	RMB70,000,000	**85.00%**	85.00%	Investment in gas pipeline infrastructure
蚌埠新奧燃氣有限公司 Bengbu Xinao Gas Company Limited*	PRC	RMB110,000,000	**70.00%**	70.00%	Investment in gas pipeline infrastructure

58. PARTICULAR OF PRINCIPAL SUBSIDIARIES *(continued)*

Name of Company	Place of incorporation/ establishment	Issued and fully paid share capital/ registered capital	Proportion of ownership interest/voting power held by the Group 2018	2017	Principal activities
蚌埠新奧燃氣發展有限公司 Bengbu Xinao Gas Development Company Limited*	PRC	USD600,000	**70.00%**	70.00%	Sales of piped gas
葫蘆島新奧燃氣發展有限公司 Huludao Xinao Gas Development Company Limited*	PRC	USD1,200,000	**90.00%**	90.00%	Investment in gas pipeline infrastructure
青島新奧新城燃氣有限公司 Qingdao Xinao Xincheng Gas Company Limited*	PRC	USD839,000,000	**90.00%**	90.00%	Sales of piped gas
浙江新奧智能裝備貿易有限公司 Zhejiang Xinao Intelligent Equipment Trading Company Limited	PRC	RMB10,000,000	**100.00%**	100.00%	Retail of gas pipelines and intelligent equipment
新奧泛能網絡科技有限公司 ENN Ubiquitous Energy Network Technology Company Limited	PRC	RMB103,000,000	**100.00%**	–	Solutions and operating services of integrated energy
新奧能源物流有限公司 Xinao Energy Logistics Company Limited#	PRC	USD22,230,000	**100.00%**	100.00%	Transportation of oil products and gas
新奧能源貿易有限公司 Xinao Energy Sales Company Limited#	PRC	USD30,200,000	**100.00%**	100.00%	Wholesale and retail of LNG and CNG, piped gas facilities, gas equipment, appliances and others
新奧財務有限責任公司 ENN Finance	PRC	RMB2,000,000,000	**95.50%**	95.50%	Provision of financial services
新奧燃氣發展有限公司 Xinao Gas Development Company Limited#	PRC	USD23,000,000	**100.00%**	100.00%	Sourcing of compressed pipeline gas and investment in gas pipeline infrastructure and sales of piped gas
新奧燃氣工程有限公司 Xinao Gas Engineering Company Limited#	PRC	USD7,000,000	**100.00%**	100.00%	Investment in gas pipeline infrastructure
新奧（中國）燃氣投資有限公司 Xinao (China)#	PRC	USD231,778,124	**100.00%**	100.00%	Investment holding

* Sino-foreign equity joint venture

\# Wholly-owned foreign enterprise

All of the above subsidiaries, except for ENN Gas and Xinao (China), are indirectly held by the Company.

All of the above subsidiaries operate principally in the places of their incorporation/establishment respectively, except that ENN Gas operates principally in Hong Kong. The above table lists the subsidiaries of the Company which, in the opinion of the Directors, principally affected the results or net assets of the Group. Giving the details of other subsidiaries would, in the opinion of the Directors, result in particulars of excessive length.

58. PARTICULAR OF PRINCIPAL SUBSIDIARIES *(continued)*

None of the subsidiaries issued any debt securities as at 31 December 2018 or at any time during the year except for Xinao (China) which has issued the following debt securities.

	2018 RMB million	2017 RMB million
Corporate bonds	**2,497**	5,490

The table below shows details of non-wholly owned subsidiaries of the Group that have material non-controlling interests:

Name of subsidiary	Incorporation/ establishment/ registration and operation	Proportion ownership interest held by non-controlling interests		Profit allocated to non-controlling interests		Accumulated non-controlling interests	
		2018	2017	**2018**	2017	**2018**	2017
		%	%	**RMB million**	RMB million	**RMB million**	RMB million
Quanzhou City Gas*	PRC	**40**	40	**96**	115	**278**	263
Shijiazhuang Xinao*	PRC	**40**	40	**78**	104	**259**	228

* excluding non-controlling interests of Quanzhou City Gas's and Shijiazhuang Xinao's subsidiaries.

Summarised financial information in respect of each of the Group's subsidiaries that has material non-controlling interests is set out below. The summarised financial information below represents amounts before intragroup eliminations.

Quanzhou City Gas	2018 RMB million	2017 RMB million
Non-current assets	**1,062**	1,010
Current assets	**612**	506
Current liabilities	**977**	857
Revenue	**3,948**	3,219
Profit and total comprehensive income for the year (note)	**239**	287
Dividends paid to non-controlling interests	**81**	96
Net cash inflow from operating activities	**395**	292
Net cash inflow (outflow) from investing activities	**31**	(58)
Net cash outflow from financing activities	**(334)**	(250)
Net cash inflow (outflow)	**92**	(16)

Note: Included in the amount for the year ended 31 December 2018 is dividends income from Quanzhou City Gas's subsidiaries and joint venture of RMB193 million (2017: RMB189 million).

Shijiazhuang Xinao	2018 RMB million	2017 RMB million
Non-current assets	**1,716**	1,526
Current assets	**1,229**	709
Non-current liabilities	**123**	12
Current liabilities	**2,175**	1,653
Revenue	**2,189**	1,933
Profit and total comprehensive income for the year	**196**	260
Dividends paid to non-controlling interests	**47**	92
Net cash inflow from operating activities	**191**	681
Net cash outflow from investing activities	**(242)**	(429)
Net cash outflow from financing activities	**(7)**	(56)
Net cash (outflow) inflow	**(58)**	196

59. STATEMENT OF FINANCIAL POSITION OF THE COMPANY

	2018 RMB million	2017 RMB million
Non-current Assets		
Property, plant and equipment	–	1
Investment in subsidiaries	7,303	4,801
Investment in an associate	39	44
Financial assets at FVTPL	242	–
Amounts due from subsidiaries	4,622	4,361
	12,206	9,207
Current Assets		
Financial assets at FVTPL	464	4
Amounts due from subsidiaries	5,940	2,655
Cash and cash equivalents	453	1,741
	6,857	4,400
Current Liabilities		
Other payables	295	82
Taxation payables	226	126
Amounts due to subsidiaries	1,463	1,572
Bank loans – due within one year	4,356	–
Unsecured bonds	443	–
Convertible bonds at FVTPL	–	3,635
Financial liabilities at FVTPL	63	17
	6,846	5,432
Net Current Assets (Liabilities)	11	(1,032)
Total Assets less Current Liabilities	12,217	8,175
Capital and Reserves		
Share capital	116	112
Reserves	4,073	1,303
Total Equity	4,189	1,415
Non-current Liabilities		
Bank loans – due after one year	1,441	–
Unsecured bonds	4,096	4,316
Senior notes	2,491	2,366
Financial liabilities at FVTPL	–	78
	8,028	6,760
	12,217	8,175

59. STATEMENT OF FINANCIAL POSITION OF THE COMPANY *(continued)*

The statement of changes in equity is as follow:

	Share capital RMB million	Share premium RMB million	Share options reserve RMB million	Retained earnings RMB million	Total RMB million
At 1 January 2017	112	20	54	3,401	3,587
Loss and total comprehensive loss for the year	–	–	–	(1,469)	(1,469)
Recognition of equity-settled share-based payment (Note 46)	–	–	34	–	34
Issue of ordinary shares upon exercise of share options (Note 46)	–	52	(14)	–	38
Share repurchase (Note 40)	–	–	–	–	–
Dividends appropriation (Note 14)	–	–	–	(775)	(775)
At 31 December 2017	112	72	74	1,157	1,415
Profit and total comprehensive income for the year	–	–	–	1,176	1,176
Recognition of equity-settled share-based payment (Note 46)	–	–	19	–	19
Issue ordinary shares on conversion of convertible bonds (Note 44)	–	79	–	–	79
Issue of ordinary shares on acquisition of subsidiaries (Note 48)	4	2,493	–	–	2,497
Issue of ordinary shares upon exercise of share options (Notes 40 & 46)	–	48	(15)	–	33
Share repurchase (Note 40)	–	(78)	–	–	(78)
Dividends appropriation (Note 14)	–	–	–	(952)	(952)
At 31 December 2018	116	2,614	78	1,381	4,189

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