OCBC Bank

Issuer Profile:
Neutral (3)

Ticker:
XINAOG

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ENN Energy Holdings Ltd ("ENN")

Summary

Issuer Profile:	Bond Recommendation:	
Neutral (3)	XINAOG 2.625% '30s^	Underweight
	XINAOG 3.25% '22s	Neutral
	XINAOG 6.0% '21s	Overweight

Fundamental Analysis Consideration	Technical Analysis Consideration
▪ Operates mainly in a regulated business though gradual liberalisation happening ▪ Downstream competition may increase overtime ▪ Healthy interest coverage ratio ▪ Manageable leverage levels	▪ Sizeable issue size from a leading market player in its industry sector ▪ Change of control put @101 applicable ▪ Externally rated by international rating agencies ▪ No financial covenants on the USD bond tranches

^ Denote green bonds

Summary

- ENN Energy Holdings Limited ("ENN") is a distributor of natural gas and other energy sources. The company commenced business operations in 1993 and is currently a leading non-state owned city gas operator in China with 229 operational locations as at 30 June 2020.
- The Chinese government continues to prioritise the development of natural gas in a bid for the country to go-cleaner. In 2019, by exajoules, coal was still predominant, with natural gas only making up 7.8% of Mainland China's total fuel consumption versus 32.7% in North America, 23.8% in Europe and 20.8% in Japan per data from BP.
- In our view, this backdrop provides a tailwind for gas distributors and the likelihood is high that the country will continue its pro-growth policies for higher usage of natural gas.
- ENN benefits from the ability to access its controlling shareholder's LNG receiving terminal which diversifies its input sources and help lower its cost of procurement when international LNG prices are lower. The company has also expanded into other businesses including integrated energy sales and value added businesses (eg: appliances under the "Gratle" brand).
- Credit metrics are manageable with EBITDA/Interest expense at more than 12.0x and gross debt-to-EBITDA at 2.2x. ENN continues to selectively grow its business by obtaining new operational locations from local governments and acquiring third party operators. Investing outflows was RMB3.3bn in 1H2020.

Company Background

- ENN Energy Holdings Limited ("ENN") is a distributor of natural gas (a non-renewable fuel) and other energy sources. The company commenced business operations in 1993 and is currently a leading non-state owned gas operator in Mainland China.
- The company is incorporated in the Cayman Islands and listed on the Hong Kong Stock Exchange ("HKSE") in 2001 with a market cap of HKD101.6bn as at 21 October 2020.
- ENN is part of the Hang Seng ESG50 Index and Hang Seng Corporate Sustainability Benchmark Index as of writing.
- ENN's Green Finance Framework aligns with the Green Bond Principles of the International Capital Market Association ("ICMA") (edited in June 2018), and the Green Loan Principles developed by the EMEA Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications & Trading Association (last revised in May 2020).
- As at 30 June 2020, ENN was ~32.8% owned by ENN Group International Investment Limited ("EGII") both directly and indirectly. EGII is controlled by the Chairman and founder of ENN, Mr Wang Yusuo. On 10 September 2020, the shareholding of ENN held by EGII had been transferred to Xinneng (Hong Kong) Energy Investment Limited, a wholly-owned subsidiary of Shanghai Stock Exchange-listed ENN Ecological Holdings Co. Ltd ("ENN Ecological"). While ENN

Ecological is a separate legal entity from ENN, it is also controlled by the Chairman and Founder Mr Wang.

- Capital Group, a global asset manager is the second largest shareholder of ENN with a 14%-stake, followed by other asset managers including JP Morgan at 8.5%, BlackRock at 6.0% and Mitsubishi UFJ Financial at 5.1%. The remaining shareholders comprising institutional and retail investors hold less than a 5.0%-stake in the company.
- The USD bonds are issued by ENN, the Hong Kong listed, Cayman Island incorporated entity.

Board of Directors & Management

Mr Wang Yusuo, 57 is the founder, Chairman of the Board of Directors and Executive Director of ENN. He is also the Chairman of the Nomination Committee. Mr Wang is the Chairman and controlling shareholder of EGII and Chairman of ENN Ecological (currently the controlling shareholder of ENN). Mr Wang is also a director of Shanghai-listed ENC Data Technology Co., Ltd, a smart city solutions provider and non-executive director of Hong Kong-listed Legend Holdings Corporation. He is the father of Mr Wang Zizheng.

Mr Han Jishen, 56 is Joint Vice Chairman and Executive Director of ENN. Mr Han is also Chairman of the risk management committee and the ESG committee of the Board. Mr Han joined the group in 1993 and in his new role, will be responsible for assisting the Chairman to ensure the effective operation of the Board and formulating good corporate governance practices and procedures, especially on the development of ENN's ESG strategies. Until 14 September 2020, Mr Han was Chief Executive Officer ("CEO") at ENN. Subject to shareholder's approval, Mr Han has been appointed as joint CEO and director at ENN Ecological.

Dr Zheng Hongtao, 45 is Joint Vice Chairman and Executive Director of ENN. Dr Zheng is a member of the risk management committee and was appointed to the board on 14 September 2020. He will be responsible for assisting the Chairman to formulate strategic plans of the Group, promote and implement the strategies and plans set by the Board, and supervise and correct the performance of the management to ensure the achievement of development goals. Prior to joining ENN in 2019, Dr Zheng worked at various subsidiaries of CNOOC and has extensive experience in LNG trading, procurement and shipping. Subject to shareholder's approval, Dr Zheng has been President and director at ENN Ecological.

Mr Zhang Yuying, 48 is an Executive Director and President of ENN and a member of the Risk Management Committee. He assists the CEO of ENN to ensure the execution of strategies especially on the integrated energy business. Prior to joining ENN, Mr Zhang worked in Kaifeng Electromechanical Group and Henan Tongli Electrical Appliances Group.

Mr Wang Dongzhi, 52 is an Executive Director of ENN and a member of the Risk Management Committee and ESG Committee. Mr Wang is responsible for the corporate governance, design and the monitoring of internal control strategies of the group. Prior to joining the group, Mr Wang was in charge of the finance department of a sino-foreign joint venture company. He is also the Director and President of EGII and an independent director of Abterra Ltd, a company listed on the Singapore Stock Exchange, though trading of the shares which has since been suspended.

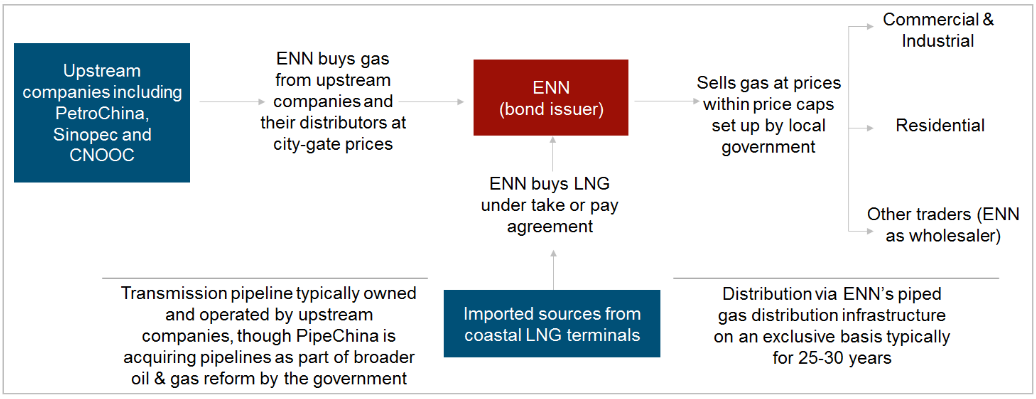
Mr Wang Zizheng, 32 is a non-executive director of ENN and a member of the ESG Committee. Mr Wang joined the group in 2014 and was Executive Chairman of ENN during May 2018 to March 2020, responsible for assisting the Chairman and Vice Chairman of the board in overseeing the group's overall strategic planning and functioning of the board. He is a director of EGII, ENN Ecological and Chairman of ENC Data Technology Co., Ltd. He is the son of Mr Wang Yusuo.

Mr Jin Yongsheng, 57 is a non-executive director of ENN and a member of the Nomination Committee. Mr Jin was an executive director of ENN from 2000 to 2006 responsible for the management of administration, legal affairs and investor relations. He is currently a director at EGII, ENN Ecological and non-executive director of Hong Kong-listed Shanghai Dazhong Public Utilities Group.

The company has four directors which are deemed as independent non-executive directors out of a board of eleven directors. Earlier in March 2020, Mr Cheung Yip Sang ceased to be Vice Chairman and Executive Director of the company and has confirmed that there is no disagreement with the board of directors that needs to be brought to the attention of shareholders.

Industry Overview

Figure 1: Simplified illustration of Gas Transmission and Distribution in Mainland China



Source: OCBC Credit Research

Upstream: China's upstream sector for the exploration and production of oil and gas is dominated by state-owned enterprises ("SOE"), the three largest by market cap include PetroChina (controlled by China National Petroleum Corporation ("CNPC")), Sinopec and CNOOC. From 1 May 2020, foreign companies registered in China with net assets of no less than RMB300mn would be allowed to carry out exploration and production activities for oil and gas. Historically foreign companies could only operate in this space via joint ventures. Despite the existence of a significant exploration and production industry domestically, China is a net importer of crude oil (about 10 million barrels per day day versus 14 million consumed per day in 2019) and natural gas (expected domestic production of 187.5 billion cubic meter in 2020 versus 330 billion cubic meter of consumption) according to a CNPC report as quoted by Reuters. In 2019, China consumed 307.3 bilion cubic meters of natural gas. Domestically the main onshore natural gas-producing regions are in the basins of Sichuan, Tarim, Junggar, Qaidam and the Ordos. Offshore natural gas fields include the Bohai Basin and the Pearl River Mouth Basin in the South China Sea. China's transmission pipeline carries domestically sourced natural gas as well as those imported from Russia, Central Asia and Myanmar.

Liquefied Nitrogen Gas ("LNG") to grow in China: Imported LNG is interchangeable with natural gas and a viable source of input for city gas operators after a regasification process. This is especially more so with LNG prices trending downwards in the past decade. China has become a top three buyer of LNG globally in recent years with China's push away from coal towards cleaner sources of energy. Per data from ENN's disclosures, as of December 31, 2019, there were 22 LNG import terminals with total annual receiving capacity of over 70.62 million tonnes (~96 billion cubic metres) in China. This number is growing with new LNG infrastructure being built in China.

Consolidating the Midstream to allow new market entrants: Historically, gas transmission pipelines were owned and controlled by the major upstream companies. As at 31 December 2019, 55,810 kilometres of domestic natural gas pipeline, representing 75.1% of China's total was owned by CNPC. However, change is underway following the setup of China Oil and Gas Piping Network Corporation ("PipeChina") in December 2019 by the central government to consolidate pipelines. In April 2020, CNOOC signed an agreement to transfer certain projects to PipeChina, and subsequently in July 2020, PipeChina announced that it will be buying RMB391.4bn of pipelines and storage facilities from PetroChina and Sinopec under a cash and script deal. Upon completion of the deal, PetroChina will own 29.9% of PipeChina, with Sinopec owning 14% and CNOOC owning 2.9%. Other shareholders are state linked entities including China Chengtong Holdings Group, Ltd, China Reform Holdings

Corporation Ltd and the National Council for Social Security Fund. On 25 September 2020, Caixin reported that PipeChina and the government of Guangdong had entered into an agreement where the current 619 kilometeres of pipeline operated at the provincial level would be transferred to PipeChina. Additionally, PipeChina would be allocated future pipelines to be built in the province.

PipeChina set up with aim to affect broader reform plans: The government aims to (1) Increase production of natural gas by lowering the barrier of entry for other companies to participate in exploration and production (2) Reduce natural gas prices by creating a more competitive downstream and (3) Coordinate planning of China's energy infrastructure to more efficiently distribute natural gas.

Downstream: There are multiple city gas operators in China. The listed gas operators do not disclose their market share data, however, we understand that by scale, a handful of companies (including ENN) command a sizeable percentage of the market. Of the significant city gas operators, ENN is the only company that does not have state-ownership whether directly or indirectly.

Figure 2: Significant City Gas Operators Focusing on the Mainland China Market

Company	Market Cap in HKD bn as at 21 October 2020	Ownership	1H2020 Revenue in HKD bn	1H2020 Profit before tax in HKD bn
China Gas Holdings Limited ("China Gas")	126.0	23.7% Beijing Enterprises Group ("BG"), a Beijing Municipality SOE 20.9% Mr Liu Ming Hui (founder and Chairman) 18.8% Fortune Oil Limited Capital Group 8.0%,JP Morgan 5.6%; remaining dispersed	29.8[1]	6.4
ENN	101.6	32.8% ENN Ecological Capital Group 14.0%, JP Morgan 8.5%, BlackRock 6.0%, Mitsubishi UFJ Financial 5.1%; remaining dispersed	36.0	4.6
China Resources Gas Group Limited ("CR Gas")	83.0	60.8% China Resources Group, a central SOE Capital Group 7.3%, remaining dispersed	22.6	4.0
Kunlun Energy Company Limited ("Kunlun Energy")	44.7	54.4% PetroChina 3.2% China National Oil and Gas Exploration and Development, remaining dispersed	59.6	7.0
Towngas China Co Ltd	10.6	70.5% by Henderson Development Limited	5.6	0.9
Binhai Investment Company Limited ("Binhai")	1.6	35.4% Tianjin TEDA Investment Holding Co Ltd, a Tianjin Municipality SOE	1.8	0.2
Beijing Gas Group Co. Ltd[2]	NA	100% by Beijing Enterprises Holdings Ltd, which is in turn 62%-owned by BG	NA	NA

Source: Company financials and fillings, Bloomberg, OCBC Credit Research

Note: (1) China Gas has a 31 March financial year end; figure refers to 50% of FY2020 revenue
(2) Beijing Gas is an unlisted entity though 62%-owned by BG which is listed in HKSAR
(3) Shareholding includes beneficial and deemed ownership
(4) Revenue and profit before tax for companies whose reporting currency is not in HKD had been converted as at 2 October 2020 for comparability; all companies in the table are listed in HKSAR except Beijing Gas

Business Overview & Analysis

ENN commenced operations in 1993 and was one of the first non-SOEs to invest in the piped gas industry. In the 1990s, coal gas was the most popular gas fuel used for cooking in Mainland China. By 1994, 147 cities had coal-gas pipelines, while only 51 cities used natural gas. Cities intensified the conversion of their coal-gas pipelines into natural gas, which saw the length of natural gas pipelines increasing exponentially through the 2000s, according to a study published by researchers Chi-Jen Yang, Yipei Zhou and Robert B. Jackson.

ENN's piped gas distribution projects are typically operated under an exclusive basis for periods ranging from 25 to 30 years. In addition to obtaining the exclusive rights directly, ENN also obtain exclusive rights by entering into joint ventures with existing local pipe gas distributors. Some of the concessions restrict ENN from transferring their interest to third parties without prior consent from the government. The lease expiries of these contracts are not publicly disclosed, though we estimate this at ~30 years on a portfolio basis. In the early years of a project, connection fee forms the large proportion of revenue while as the project matures, gas usage becomes the recurring income.

Organically, ENN can increase its revenue by increasing the utilization rate of already connected customers and the number of connected customers from their existing locations, in addition to obtaining new operational locations.

Per ENN, city-gate prices are affected by factors outside of the company's control. City-gate prices refer to wellhead price (ex-factory price) plus transmission costs. Natural gas is sourced with reference to benchmark city-gate prices and the transportation cost for national transmission pipelines. The National Development and Reform Commission ("NDRC") (who is is in charge of macroeconomic planning) set benchmark prices. 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. After years of price control, there has been gradual partial deregulation of prices and from 20 November 2016 onwards, the city-gate prices are no longer a ceiling price. Natural gas buyers and sellers are allowed to agree on the specific city-gate price based on benchmark prices, which cannot be more than 20% above the benchmark city-gate price.

ENN has entered into agreements to buy natural gas from the major upstream natural gas suppliers in China or their distributors under take-or-pay, guaranteed gas supply contracts or other long-term supply contracts where volume can typically be renewed.

ENN has also entered into long term LNG sale and purchase agreements with various suppliers including Chevron USA INC, Origin Energy LNG Portfolio Pty Ltd and Total Gas & Power Asia Private Limited where ENN is obliged to import up to 1.44 million tonnes (~69.2 billion cubic feet) of LNG per year. ENN can access LNG receiving terminals located in the Zhoushan Economic Development Zone in Zhejiang Province ("Zhoushan LNG") mainly owned by its controlling shareholder. In August 2020, S&P Global Platts reported that a new subsea natural gas pipeline that connects the facility with the provincial natural gas distribution network in Ningbo City has started up. In 1H2020, ENN had expanded its purchase of LNG and reduced its overall cost of gas supply, with part of the cost savings shared with customers.

In addition to city-gas distribution, ENN is also growing its integrated energy business which provides tailor-made energy systems to customers, mainly for industrial park customers though also include airport, railway stations and municipal areas. Other businesses include wholesale of gas and value-added businesses (eg: appliances under the "Gratle" brand).

Figure 3: Business segments

Segment	EBIT 1H2020 (RMBmn)	Percentage contribution to total EBIT 1H2020	Brief Description
Retail Gas Sales Business	3,036	54.2%	• Main EBIT generator of ENN, from sale of natural gas to residential, commercial and industrial customers (“C&I”). • Also operates vehicle gas refueling stations which faces increasing competition from substitution into electric vehicles. • 10,163 million cubic metres of gas was sold to retail gas sales customers (up 4% y/y) in 1H2020. • Out of the volume of gas sold in this segment in 1H2020, C&I customers makes up ~75%. • In 1H2020, 55.8% of the Retail Gas Sales Business revenue was derived from C&I customers, indicative of this segment being volume-based. • Gas usage charges are based on actual usage on per cubic metre basis which varies by operational location. • Residential customers typically purchase gas units in cash at point-of-sales with prepaid gas units stored and consumed via the stored value card. • Smart gas metres are installed at the premises of C&I customers. Periodic bills based on the prior period’s actual usage are then sent to customers. Settlements are typically received about one week from the date of billing.
Construction and Installation	1,453	25.9%	• Charges construction and installation fees from property developers, residential customers and C & I customers according to local government’s regulations. Driven by completed connections for new customers. • Residential customers are the main contributor to this segment. In 2019, 78.9% of gas connection fees was from residential customers (2018: 77.9%). • Around 1.0 million of new residential customers were added in 1H2020, new buildings were the largest contributor at 73% for 1H2020, with “rural coal-to-gas” making up 20% and old buildings the remainder. • Average construction and installation fee was RMB2,508 per household, stable for a few years. • Higher profit margin business with EBIT margin of 54% in 1H2020, though rural connections have a lower margin.
Value Added Business	566	10.1%	• Provides a variety of products and services such as safe home, smart kitchen, one-stop heating and safety and security systems. • Appliances offered include cookers, space heaters, water heaters, kitchen ventilators and provide customers with repair and maintenance support. • New and growing business with higher margin.
Sales of Integrated Energy and Services	411	7.3%	• Distributes other forms of energy such as steam, heating, cooling, electricity. • As at 30 June 2020, 108 integrated energy projects in operation. Integrated energy projects are customized projects which are more efficient with lower energy consumption costs for customers. In 1H2020, 4,806 million kWh of integrated energy sales generated. • 23 more projects under construction as at 30 June 2020. • Customers invest in energy equipment and facilities, ENN operate, manage, maintain facility and procure raw materials.
Wholesale of Gas	136	2.4%	• Supplies LNG to wholesale customers where revenue is recognized when control of LNG is transferred. • Customers include small-scale gas distributors, LNG refuelling stations and power plants outside its city-gas concessions. • 1H2020 sales volume was 3,669 million cubic metres (up 6.8% y/y). • Bought 7% stake in Shanghai Petroleum and Natural

			Gas Exchange in 2015 and in 2017, bought a 7% stake in Chongqing Petroleum and Natural Gas Exchange.
Total	**5,602**	**100.0%**	

Source: Company, OCBC Credit Research

Business Considerations

- **Early mover in a growth sector:** The Chinese government continues to prioritise the development of natural gas in a bid for the country to go-cleaner. While natural gas is not a renewable source of energy and China is targeting to be carbon neutral before 2060, the use of natural gas is important as a viable source of energy during this transition period. In 2019, by exajoules, natural gas only makes up 7.8% of Mainland China's total energy consumption versus 32.7% in North America, 23.8% in Europe and 20.8% in Japan per data from BP's Statistical Review of World Energy 2020. This suggests possibility for market share gains for natural gas, with the government also aiming to increase the percentage to 14% by 2030. In our view, this backdrop provides a tailwind for gas distributors and the likelihood is high that the country will continue its pro-growth policies for higher usage of natural gas at least in the next 10 years. While various climate scientists are currently questioning the actual environmental impact of natural gas, which is a fossil fuel and finite resource, energy experts and governments broadly agree that natural gas burns more efficiently and releases less carbon dioxide (assuming little leakage during the process) relative to coal and oil. Although coal is cheaper, it is seen as one of the main causes for pollution in Mainland China. In 2017, a coal-to-gas conversion programme was launched to reduce pollution, targeting rural households in Northern China. China has invested in infrastructure development including expanding pipelines to allow natural gas imports overland and LNG terminals and network expansion within the country to allow natural gas to reach more people.

- **Operates across cities and towns within China though clustered for efficiency:** ENN's business is focused in Mainland China. As at 30 June 2020, ENN has 229 operational locations with a total connectable urban population of ~107.6mn people. These operational locations are located across 22 provinces, municipalities and autonomous regions in Mainland China. By count, main provinces which ENN operates in include Hebei, Shandong, Anhui, Guangdong, Zhejiang, Jiangsu, Fujian, Hunan and Henan. Per ENN, it targets geographies with established commercial and industry zones where urban population density is high while households have relatively high average income. ENN also focuses on areas where the government is encouraging the use of natural gas as a replacement and projects are typically clustered around major natural gas pipelines.

Figure 4: China's natural gas transmission and other key pipelines

Source: CNPC, Bloomberg
Note: (1) Not all pipelines are included
(2) Geographical areas which ENN is active in denoted by the blue circle

- **Regulated business though gradual liberalisation happening:** City gas distribution is a regulated business, with the NDRC regulating city-gate prices (input costs for ENN) and local governments regulating end-user prices which affects top line. This means that ENN is subject to price risk if it is unable to pass through increased cost to end-customers. On 30 June 2017, the NDRC published guidelines that stipulated a costs plus reasonable returns principle for city gas distributors. Returns for gas distributors such as ENN are capped at 7% return on assets, calculated on domestic gas prices. While the NDRC guidelines cover all gas distributors, NDRC's local branches and pricing bureaus formulate detailed implementation rules. Local pricing bureaus determine indicative end-user tariffs, with adjustments for residential end-users approved only after a hearing. Like many other countries, residential prices are typically stickier. For non-residential users, ENN has an automatic pass-through mechanism if the price adjustments are within government's indicative prices. Per ENN, assets owned include intermediate, main and branch pipelines, pressure regulating boxes, switches, compressed natural gas ("CNG") trucks and processing stations. ENN may be required to lower down tariff charged to end-users if return on asset ratio is above 7%. Annualizing the 1H2020 net income of RMB3.2bn and average total asset as at 30 June 2020 and 30 June 2019, ENN's return on asset based on our calculation was ~7.6% in 1H2020.

- **Downstream competition may increase:** Some industry observers have opined that the formation of PipeChina may lead to increased downstream competition, with upstream companies investing more into the retail business and this would be something that we will be monitoring for the impact to ENN. In October 2019, PetroChina's 57.6%-owned subsidiary Kunlun Energy announced the acquisition of equity stakes in 17 project companies from Shenzhen-listed Jinhong Holding Group Co., Ltd. ("Jinhong Holding") that are mainly in the gas supply and management business for RMB1.7bn. The government is trying to encourage more investments (including foreign investments) into the natural gas and LNG value chain. In 2019, the China Daily reported that foreign investment is now allowed for city gas distributors in cities with more than 500,000 people. ENN has been responding by diversifying into new businesses namely, Integrated Energy and Services and Value-added Businesses.

Financial Consideration

- **Lower revenue due from lower prices to end-users and construction delays though should recover in 2H2020:** For 1H2020, ENN's revenue was down 10.8% y/y to RMB31.5bn despite volume of total natural gas sales (aggregate of Gas Sales Business and Wholesale) increasing 4.8% y/y to 13,832 mn cubic meters. This was driven by a pass through of upstream natural gas prices to end-users. However, gross profit held up better and improved marginally by 0.1% y/y to RMB5.6bn which the company attributes to diversification in sourcing of natural gas (eg: more LNG imports and from unconventional gas sources such as coal bed methane). Based on the National Bureau of Statistics ("NBS") data, the average price of LNG in China for 1H2020 was lower at RMB3,138.6/tonne versus RMB4,179.9/tonne in 1H2019. In 1H2020, the Retail Gas Sales business was still the largest contributor at 58% of total revenue and 56% of total reported EBITDA. The second largest contributor, Construction and Installation saw a decline in revenue of 26.4% y/y and reported EBITDA decline 20.2% y/y, due to construction delays from the COVID-19 outbreak in 1H2020. The Construction and Installation business for residential households is driven by new home sales. With the virus largely under control in Mainland China and home sales ticking back up, we expect growth in 2H2020 to pick up. The Integrated Energy and Services business saw a strong revenue growth y/y of 106.2% and 83.0% y/y for reported EBITDA as existing operating projects and new projects put into operation generated 4,806 million kWh of energy (up 146.2% y/y).

- **Healthy interest coverage ratio:** EBITDA (based on our calculation which does not include other income, other gains and other losses) was at RMB4.8bn in 1H2020, increasing 4.1% y/y. Taking away depreciation & amortisation, ENN's expenses fell by 18.6% y/y. Interest expense including capitalised interest and interest on lease liabilities was lower by 15.2% y/y at

RMB380m, due to lower average debt balance (including lease liabilities as debt) and lower interest rates. EBITDA/Interest coverage ratio was healthy at 12.6x and higher than 1H2019's 10.3x. Reported EBITDA from Retail Gas Sales, which we see as a stable part of the business was RMB3.6bn in 1H2020, covering interest expense (including capitalised interest) by 9.5x.

- **Well within targeted net gearing ratio:** ENN maintains a target ratio where net gearing is less than 1.0x, which in our view is relatively prudent. The company has in the past bought back bonds as a way to manage its net gearing ratio. As at 30 June 2020, including lease liabilities as debt, ENN's unadjusted net gearing ratio was 0.41x, relatively stable versus 0.40x as at 31 December 2019 even as it took some low cost anti-epidemic loans. As at 30 June 2020, the company though has guaranteed RMB633mn of loan facilities granted to associates and joint ventures and RMB2.6bn in amounts due to associates, joint ventures and related companies. Conservatively, if we take these items as debt, we find adjusted net gearing at 0.51x. In the case of ENN though, bulk of the amounts due to associates, joint ventures and related companies are interest free and for those where interest cost is applicable, it is minimal and not a main concern in our view.

- **……though gross gearing and gross debt-to-EBITDA may be more relevant:** Residential customers of ENN typically purchase gas units which is stored in a store value card and are effectively paying for gas in advance of usage. Along with store value cards which reduce credit risks, deposits are received before construction work for the Construction and Installation business. Additionally, connection fees and subsidies are received from some customers for the construction of gas pipelines and on-going deliverability to supply gas. These three current liabilities items totaled RMB15.3bn as at 30 June 2020 (31 December 2019: RMB15.9bn), significantly higher than unrestricted cash balance of RMB7.9bn. As such, we take reference to ENN's gross gearing and gross debt-to-EBITDA as better measures of leverage levels. As at 30 June 2020, gross gearing was 0.66x (31 December 2019: 0.63x) while gross debt-to-EBITDA was 2.2x in 1H2020 in line with 2019's 2.2x.

- **Manageable short term refinancing risk:** As at 30 June 2020, including lease liabilities, short term debt at ENN was RMB10.7bn, representing 51% of gross debt. As at 30 June 2020, of the debt coming due, RMB5.4bn are due in 2H2020, consisting of a bank loan, implying RMB5.3bn is due in 1H2021 though would fall to RMB2.1bn in 2H2021. While the debt coming due in the short term is significant, ENN in our view has manageable refinancing risk. In September 2020, the company has raised USD750mn (~RMB5.0bn) in green bonds where proceeds were intended for refinancing and to fund and/or refinance allowed projects under its green finance framework. Additionally, the company has unutilized credit facilities of RMB10.4bn.

- **Exposed to currency mismatch:** ENN's revenue is derived in RMB, however, the company has a significant amount of foreign denominated debt, largely in USD. Excluding lease liabilities, the principal amount of ENN's foreign borrowings amounted to USD1.9bn (~RMB13.7bn) and represent 66% of gross debt. The remaining one third of debt is in RMB. ENN seeks to hedge foreign currency risk arising from foreign debt. As at 30 June 2020, USD950mn (~RMB6.4bn) of principal amount has been hedged. It was disclosed that in 2019, for a 5% weakening in RMB against foreign currencies, ENN's net profit will decline by RMB580mn. This represents 8.5% of 2019's net profit. The RMB has appreciated in the past three years (more so in the past year) and has traded between RMB6.27 to RMB7.18 for USD1.00 during the past three years. We see currency risk as a manageable risk for now for ENN on the back of RMB's generally appreciating trend. Additionally, ENN maintains access to Asiadollar bond markets which allows the company to refinance in USD for upcoming USD maturities.

- **Likely minimal secured debt:** As at 30 June 2020, gross debt (including lease liabilities) was RMB21.2bn. While ENN did not provide an aggregate number for secured debt as at 30 June 2020, the company shared that (1) Assets with carrying value of RMB525mn were pledged for bank loans, bill facilities and contracts granted to ENN, its joint ventures and associates though the quantum of such bank loans, bill facilities and contracts were undisclosed (2) Certain rights to receive construction and installation and gas supply fee income to obtain banking facilities (RMB428mn of facilities utilized as at 30 June 2020) (3) Bank loan related to bill receivables discounted to banks amounted to RMB417mn. If we assume a 70% "loan-to-value" ratio on the RMB525mn of assets, this may have resulted in RMB368mn of bank loans, bill facilities and contracts granted. In total, we place the ceiling of secured loans at only RMB1.2bn.

- **Manageable capex though acquisitions may tilt investing outflows higher:** In 1H2020, ENN spent RMB2.2bn of capex, somewhat lower than 1H2019's RMB2.8bn though overall investing outflow was higher at RMB3.3bn (1H2019: RMB1.2bn). This was in part due to lower receipts (net of advances) from associates and joint ventures. As at 30 June 2020, capital commitments were RMB1.9bn, mainly for property, plant and equipment and investments into associates and joint ventures. This amount though does not include commitments under take-or-pay contracts for LNG that last for five to ten years. In 2019, ENN bought a number of city gas businesses and assets for RMB2.0bn (of which cash consideration was RMB1.4bn, net of deposits paid and cash acquired). We expect ENN to selectively continue to look for opportunities to obtain new operational locations from local governments and/or acquire third party city gas businesses.

Technical Considerations

Positives

- Sizeable issue size from a leading market player in its industry sector
- XINAOG 2.25% '30s is a green bond and likely eligible for ESG mandates
- Change of control put @101 applicable
- Externally rated by international rating agencies

Negatives

- No financial covenants on the USD bond tranches

Figure 5: Relative value

Bond	Outstanding Amount	Maturity/ Call date	Unadjusted gross gearing	Ask Yield	Spread
XINAOG 2.625% '30s^	USD750mn	17/09/2030	0.66x	2.38%	157bps
XINAOG 3.25% '22s	USD600mn	24/07/2022	0.66x	1.52%	137bps
XINAOG 6.0% '21s	USD365.5mn[1]	13/05/2021	0.66x	1.38%	128bps
VEYONG 7.5% '21s	USD500mn	27/02/2021	1.01x	2.32%	223bps
CHIRES 4.5% '22s	USD716.4mn	05/04/2021	0.22x	1.25%	112bps
KUNLEG 3.75% '25s	USD500mn	13/05/2025	0.45x	1.72%	139bps
AREIT 2.65% '30s^	USD73.7mn	26/08/2030	0.67x	2.38%[2]	156bps[2]
AREIT 3.2% '22s	USD110.5mn	03/06/2022	0.67x	1.15%[2]	105bps[2]
MCTSP 3.05% '29s	USD184.1mn	22/11/2029	0.52x	2.48%[2]	174bps[2]
MCT 3.2% '21s	USD51.6mn	12/04/2021	0.52x	0.61%[2]	53bps[2]

Indicative prices as at 21 Oct 2020 Source: Bloomberg
Unadjusted gross gearing based on latest available financials
^ Denote green bonds
Note: (1) Original size at issuance was USD750mn, company had repurchased part of the bonds
(2) In USD-implied terms

In our view, the closest peers to ENN's bonds are other listed city gas operators who are Asiadollar bond issuers. Among these bonds, we think its curve provides an interesting pick up of ~27bps versus CR Gas' CHIRES 4.5% '22s which we think compensates for the credit differential.

Investors who are looking for something more yielding may consider the VEYONG 7.5% '21s paying a

YTM of 2.32%. The bond is issued by ENN Clean Energy International Investment Ltd, though unconditionally and irrevocably guaranteed by ENN Ecological. ENN Ecological is the controlling shareholder of ENN.

Singapore's only city gas operator City Gas is a subsidiary of Keppel Infrastructure Trust ("KITSP", Issuer profile Neutral (4)) where KITSP has no senior bonds. Among high grade bonds, we take Ascendas Real Estate Investment Trust ("AREIT"), Neutral (3)) and Mapletree Commercial Trust ("MCT), Neutral (3)) as secondary reference. In implied SGD-terms, we prefer the MCTSP 3.05% '29s paying YTM of 2.48%, though among shorter dated bonds, we like the XINAOG 6.0% '21s which is paying YTM of 1.52%.

We do not officially cover ENN Ecological, CR Gas and Kunlun Energy.

Conclusion

ENN is a distributor of natural gas and other energy sources. It is one of the leading city gas distribution companies in China operating across 229 operational locations as at 30 June 2020. While natural gas is not a renewable source of energy and China is targeting to be carbon neutral before 2060, the use of natural gas is important as a viable source of energy during this transition period. The company is also expanding into newer income sources including integrated energy and value added businesses which may help it face rising competition in city gas distribution. The company has a manageable credit profile with strong interest coverage and reasonable debt levels which has been maintained at below its 1.0x net gearing internal target. Constraining its credit profile are its currency mismatch and existence of large contract liabilities. We are initiating ENN with a Neutral (3) issuer profile.

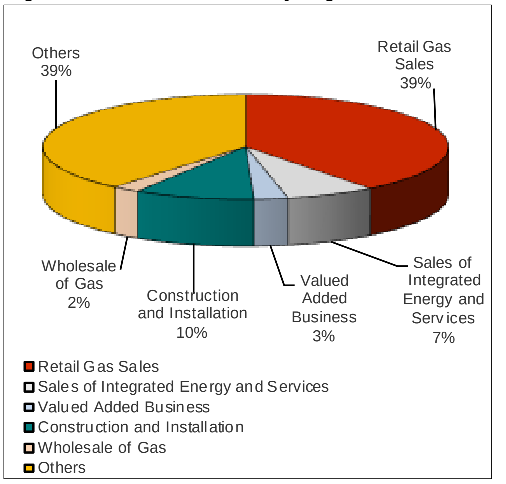
ENN Energy

Table 1: Summary Financials

Year End 31st Dec	FY2018	FY2019	1H2020
Income Statement (RMB'mn)			
Revenue	60.7	70.2	31.5
EBITDA	7.3	9.0	4.8
EBIT	6.0	7.2	3.8
Gross interest expense	0.8	0.9	0.4
Profit Before Tax	5.6	8.8	4.1
Net profit	3.8	6.9	3.2
Balance Sheet (RMB'mn)			
Cash and bank deposits	7.9	7.4	7.9
Total assets	73.9	81.2	85.6
Short term debt	11.6	7.6	10.7
Gross debt	20.2	19.7	21.2
Net debt	12.3	12.3	13.2
Shareholders' equity	25.6	31.0	31.9
Cash Flow (RMB'mn)			
CFO	8.3	11.7	3.2
Capex	5.9	7.3	2.2
Acquisitions	0.5	1.3	0.3
Disposals	0.3	0.4	0.0
Dividends	1.5	1.7	0.3
Interest paid	0.7	0.8	0.4
Free Cash Flow (FCF)	2.4	4.3	1.0
Key Ratios			
EBITDA margin (%)	12.08	12.79	15.22
Net margin (%)	6.29	9.78	10.03
Gross debt to EBITDA (x)	2.76	2.19	2.20
Net debt to EBITDA (x)	1.68	1.37	1.38
Gross Debt to Equity (x)	0.79	0.63	0.66
Net Debt to Equity (x)	0.48	0.40	0.41
Gross debt/total asset (x)	0.27	0.24	0.25
Net debt/total asset (x)	0.17	0.15	0.15
Cash/current borrowings (x)	0.69	0.97	0.74
EBITDA/Total Interest (x)	9.69	10.23	12.63

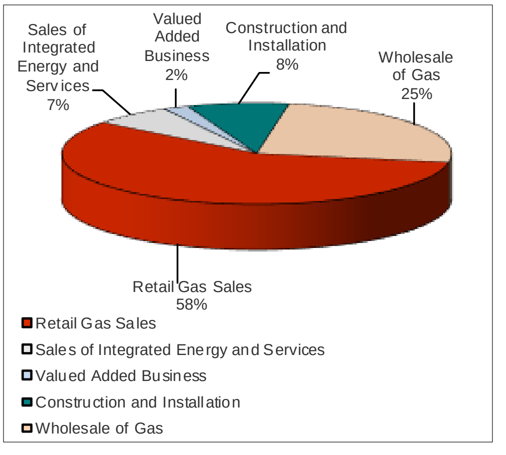
Source: Company, OCBC estimates

Figure 1: Asset breakdown by Segment - FY2019



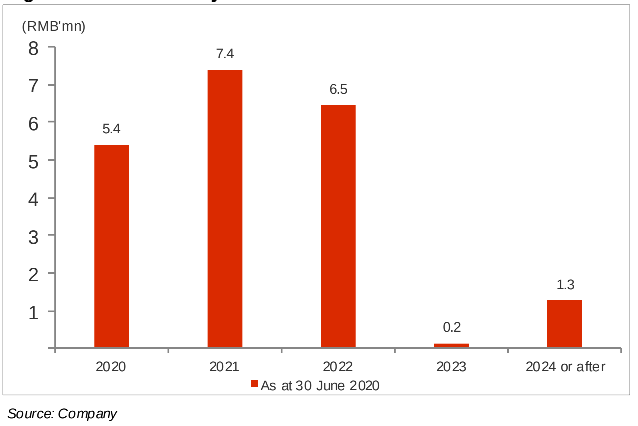
Source: Company

Figure 2: Revenue breakdown by Segment - 1H2020



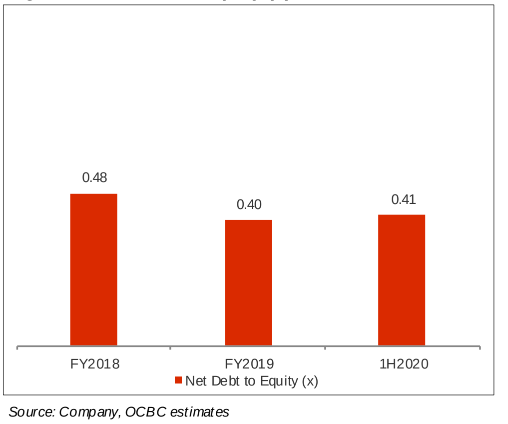
Source: Company

Figure 3: Debt Maturity Profile



Source: Company

Figure 4: Net Debt to Equity (x)



Source: Company, OCBC estimates

Explanation of Issuer Profile Rating / Issuer Profile Score

Positive ("Pos") – The issuer's credit profile is either strong on an absolute basis, or expected to improve to a strong position over the next six months.

Neutral ("N") – The issuer's credit profile is fair on an absolute basis, or expected to improve / deteriorate to a fair level over the next six months.

Negative ("Neg") – The issuer's credit profile is either weaker or highly geared on an absolute basis, or expected to deteriorate to a weak or highly geared position over the next six months.

To better differentiate relative credit quality of the issuers under our coverage, we have further sub-divided our Issuer Profile Ratings into a 7 point Issuer Profile Score scale.

IPR	Positive		Neutral			Negative	
IPS	1	2	3	4	5	6	7

Please note that Bond Recommendations are dependent on a bond's price, underlying risk free rates and an implied credit spread that reflects the strength of the issuer's credit profile. Bond Recommendations may not be relied upon if one or more of these factors change.

Explanation of Bond Recommendation

Overweight ("OW") – The performance of the issuer's specific bond is expected to outperform the issuer's other bonds, or the bonds of other issuers either operating in the same sector or in a different sector but with similar tenor over the next six months.

Neutral ("N") – The performance of the issuer's specific bond is expected to perform in line with the issuer's other bonds, or the bonds of other issuers either operating in the same sector or in a different sector but with similar tenor over the next six months.

Underweight ("UW") – The performance of the issuer's specific bond is expected to underperform the issuer's other bonds, or the bonds of other issuers either operating in the same sector or in a different sector but with similar tenor over the next six months.

Other

Suspension – We may suspend our issuer rating and bond level recommendation on specific issuers from time to time when OCBC is engaged in other business activities with the issuer. Examples of such activities include acting as a joint lead manager or book runner in a new issue or as an agent in a consent solicitation exercise. We will resume our coverage once these activities are completed.

Withdrawal ("WD") – We may withdraw our issuer rating and bond level recommendation on specific issuers from time to time when corporate actions are announced but the outcome of these actions are highly uncertain. We will resume our coverage once there is sufficient clarity in our view on the impact of the proposed action.

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