Corporate Snippet

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Rising star in an emerging industry — China Utilities

China Oil and Gas (603 HK, HK$0.87) STRONG BUY (unchanged)

Target price: HK$2.27 (+160.9%)

High-growth play in an emerging industry. We are positive on prospects of China's downstream natural gas distribution industry due to the country's expanding demand fuelled by government initiatives to reduce reliance on coal and promote alternative and clean energy sources. The country's expanding natural gas transmission infrastructure and gas sources should improve the accessibility of natural gas boosting consumption at a five-year CAGR of 11.9% between 2008 and 2012, from 80.1b m^3 to 140.0b m^3. We believe China Oil and Gas, our top pick in the sector, will witness a period of rapid growth supported by the sector's solid fundamentals. Most of its projects (existing and under construction) are strategically located in regions covered by national major gas transmission pipelines. Its partner, China Petroleum Pipeline Bureau (CPP) gives it a technological edge in terms of operations and project selection. Its focus on industrial users allows it to acquire stable gas sources, operate in a cost effective manner and benefit from rising gas charges.

Well covered by major pipelines. Currently, the group and its JV, China City Natural Gas (CCNG) has secured six city natural gas projects, all of them covered by major gas transmission pipelines. Its Xining project in Qinghai province sources gas from the Qaidam-Lanzhou line (澀寧蘭管線), while its three projects in Shandong province source gas from the Cangzhou-Zibo Pipeline (蒼州淄博管線). Its city gas projects in Liling, Hunan province, and Rugao, Jiangsu province, are covered by the Zhong County-Wuhan pipeline system (忠武线系统) and West-to-East pipeline system (西气东输管线系统). The company has a gas processing station in Maanshan, Anhui province, which sources gas from the West-to-East pipeline system. Under its business plan, the Maanshan station will feed gas to CNG station networks in Maanshan and Nanjing. This gives the company access to stable gas sources at relative low cost. Currently, gas sources are scarce in China. Some of the city gas operators resort to liquefied natural gas (LNG), which is about 27.0% more expensive than piped gas, according to our estimates.

Acquiring a mega project. The company is in the process of acquiring two city natural gas projects in Nanchang, Jiangxi province, and Chaozhou, Guangdong province. The proposed Phase II of the West to East pipeline system, to be built between 2008 and 2010, will run across Nanchang. We do not yet know whether the pipeline will cover Chaozhou as well. In November, the Chaozhou government entered into a gas supply agreement with PetroChina, under which, PetroChina will supply 2.0b m^3 of gas annually to Chaozhou on the condition that CCNG, the group's 51.0%-owned JV with CPP, is the sole gas operator within the region. The gas supply agreement implies that Chaozhou would have access to piped gas in the future. It is possible that one of the outlets of the proposed Phase II of the West-to-East pipeline will be located in Chaozhou. Further, CCNG signed a city gas project agreement with Chaozhou, under which the Chaozhou government will grant CCNG rights to operate a city natural gas project in Chaozhou on the condition that it secures a steady supply of natural gas. The project's registered capital is estimated at RMB250.0m and investment at RMB800.0m. If it goes ahead, it will replace the Xining project as the company's/CCNG's flagship and substantially boost the company's gas sales. We estimate the company's sales volume at 650.0m m^3 in FY12/07F, 923.8m m^3 in FY12/08F and 1,432.9m m^3 in FY12/09F. The Chaozhou project alone is expected to be larger than the company's total sales volume.

Capitalizing on partner's expertise. CCP, which is building Phase II of the West-to-East pipeline, is China's major oil and gas pipeline constructor owned by CNPC. Since CPP is the country's biggest oil and gas contractor, it has access to information about planned pipelines and their coverage, which allows it to identify city gas projects with stable gas sources and high growth potential. With technological assistance from CCP, the company and CCNG can develop projects in a cost effective and efficient manner. CCNG's city gas project in Xining is the best example of their strong execution capability. The highly integrated project with an annual gas sales volume of more than 400.0m m^3 was developed from scratch in 2000 and commenced operation in 2001. Zhengzhou Gas (3928 HK, HK$1.37, NR) is a close comparable to the Xining project. It sold 286.2m m^3 of natural gas in 2006. Further, at end-FY03/07A, China Gas (384 HK, HK$3.54, SELL) sold 357.7m m^3 of natural gas only.

High growth potential. Unlike other well-established players with a number of projects in operation and high earning bases, the company's earnings base is low. Xinao Gas (2688 HK, HK$14.60, NR) sold about 1.3b m^3 of natural gas and had 64 city natural gas projects in hand at end-FY12/06A. At end-1H FY06/07F, Xinao Gas had 66 city gas projects in hand. At end-FY03/07A, China Gas had 57 city natural gas projects. We expect only Xining to provide some meaningful contribution to China Oil and Gas this fiscal year. The company's nine CNG (condensed natural gas) stations, four city gas projects and three LNG processing plants should commence operation between FY12/08F and FY12/10F. The profitability of its existing projects, such as Maanshan and Liling, should improve substantially due to rising demand and tariff hikes. Due to its small revenue and earnings base, additional contributions from new projects should provide a substantial boost to its top and bottom line. The company's three-year earnings CAGR is estimated at 60.4% between FY12/06A and FY12/09F.

Undervalued. The counter is trading at a P/E of 24.6x for FY12/08F and 16.5x for FY12/09F. Compared with the sector's average one-year forward P/E of 35.5x and two-year forward P/E of 27.0x, its valuation is attractive, in our view, given its high growth potential. The company bought back 12.44m shares at HK$0.78-0.81 between October and November, which indicates that its shares have been undervalued by the market.

Table 1: Peer group comparison

Company name	Ticker	Year End	Currency	Price	Market Cap (US$m)	P/E (x) 1-yr forward	P/E (x) 2-yr forward
Panva Gas	1083 HK	Dec	HKD	4.28	1,071.6	44.1	25.6
China Gas	384 HK	Mar	HKD	3.54	1,512.3	37.3	29.3
Zhengzhou Gas	3928 HK	Dec	HKD	1.37	219.9	14.0	10.9
Xinao Gas	2688 HK	Dec	HKD	14.6	1,891.0	27.4	22.6
Changchun Gas	600333 CH	Dec	CNY	9.34	582.8	49.2	44.5
Average						*35.5*	*27.0*

Source: Bloomberg

Gas transmission pipelines in China. The length of China's main natural gas transportation channels reached 26,450km in 2006 (across 27 provinces and cities), including 23,650km above ground and 2,800km underwater pipelines. At end-2006, PetroChina owned 20,590km of gas transmission pipelines, or 77.8% of the total, including:

- West-to-South system (西南输气管网系统) – built in the 1960s in Sichuan consists of the northern trunk line and southern trunk line and transmits natural gas from China's southwest to Hubei and Hunan province via the Zhong County- Wuhan gas transmission pipeline system.

- Zhong County-Wuhan system (忠武线系统) - starting from Zhong County in Chongqing municipality and ending in Wuhan in Hubei province, the pipeline sources natural gas from the West-to-South system and transmits gas to Hubei and Hunan. It's designed annual transmission capacity is 3.0b m^3.

- Shaanxi-Beijing line (陕京一线) - Line I runs from Jingbian in Shaanxi province to Yamenkou in Beijing and Line II from Jingbian to Daqing Caiyu in Beijing. It sources natural gas from Changqing's oil and gas fields.

- Qaidam-Lanzhou line (澀寧蘭管線) - runs from the Sebei natural gas field (澀北氣田) in eastern Qinghai (Qaisam Basin) across Xining city (where the group's flagship city gas project located) to Lanzhou in Gansu province. Its designed annual transmission capacity is 3.4b m^3.

- West-to-East pipeline system (西气东输管线系统) - with an annual designed capacity of 12.0b m^3, the 3,786.0km pipeline is China's natural gas transmission artery, sourcing gas from the Tarim gas field in Xinjiang and feeding it to Henan, Anhui, Zhejiang, Jiangsu and Shanghai. The trunk line connects its end users via three sub-lines: Jining line (冀宁联络线), Huaiwu line (淮武联络线) and Lanyin line (兰银线). Starting in Lunnan (轮南) in Tarim, Xinjiang, the pipeline runs through Xinjiang, Gansu, Ningxia, Shaanxi, Shanxi, Henan, Anhui, Zhejiang, Jiangsu and ends in Shanghai. The whole system consists of an artery, sub-trunk pipelines, sub-pipelines and peripheral infrastructure such as storage facilities. Its construction started in July 2002 and was completed in December 2004. At end-March 2007, PetroChina entered into supply contracts with 50 users and plans to expand the system's annual transmission capacity to 17.0b m^3 by upgrading its existing 10 pressure stations and adding 12 new ones.

Improved access boosts consumption. There is a positive correlation between the length of gas transmission pipelines and the sales of gas. Between 2004 and 2006, the length of PetroChina's pipelines increased 8.4% to 20,590.0km and its natural gas sales volume increased 73.6% to 3,842.0b m^3.

Second artery. To increase gas consumption and secure more gas sources, CNPC (China National Petroleum Corp, parent of PetroChina and the group's JV partner, China Petroleum Bureau) plans to invest RMB102.0b to build Phase II of the West-to-East system. The 4,859.0km pipeline is expected to be completed in 2010 and have an annual transmission capacity of 30.0b m3. It will source from the Central Asia pipeline, which transmits natural gas from Turkmenistan to China. The country's second gas transmission artery is designed to start from Horgos in Xinjiang and reach Shanghai via Xian, Nanchang and a major city in Guangdong province (yet to be decided). It will cross 13 provinces, autonomous regions and municipalities including Xinjiang, Gansu, Ningxia, Shaanxi, Henan, Anhui, Hubei, Hunan, Jiangxi, Guangxi, Guangdong, Zhejiang and Shanghai. We expect its completion to improve access to natural gas boosting China's gas consumption.

Demand to rise. China's abundant coal resources have been its major energy source. In 2005, coal accounted for 68.9% of the country's total primary energy consumption and natural gas for only 2.9%, a slight increase from 1.8% in 1996. As coal reserves are dwindling and coal-fired generated energy is a source of significant pollution, the Chinese government has been encouraging substituting or supplementing coal with clean energy sources. In its 11^{th} Five-year Plan, China plans to increase the ratio of natural gas consumption to 5.3% by 2010 and to 10.0% in 2020. According to BP 2007 World Energy Statistics, between 2004 and 2006, China's natural gas consumption increased 42.9% to 55.6b m^3 from 38.9b m^3 and is expected to reach 66.7b m^3 in 2007, representing an annual growth rate of 20.0%. It is projected to increase at a five-year CAGR of 11.9% between 2008 and 2012, from 80.1b m^3 to 140.4 b m^3 fuelled by the country's rapid industrialization and urbanization. We estimate that China's natural gas sources will expand from 57.3b m^3 in 2006 to 154.3b m^3 in 2012.

PetroChina - leading gas producer. Between 2004 and 2006, China's natural gas production increased 42.9% to 58.5b m^3. Natural gas reserves of PetroChina, Sinopec and CNOOC totaled 1,771.4b m^3 at end-2006, up 18.2% from the 2004 level. At end-2006, PetroChina, Sinopec and CNOOC accounted for 85.5%, 4.5% and 10.0%, respectively, of the total gas reserves. Collectively, PetroChina, Sinopec and CNOOC produced 57.3b m^3 in 2006, up 43.6% from the level in 2004. Accounting for 78.5% of China's natural gas production, PetroChina is the biggest natural gas producer in the country, followed by Sinopec (12.7%) and CNOOC (8.8%).

New gas sources. China still relies on its natural gas resources, which we expect to expand by 2012 due to the addition of:

- 30.0b m^3 per annum of natural gas from Turkmenistan - via the Central Asia gas transmission pipeline and Phase II of the West-to-East pipeline in 2010.

- 20.0b m^3 of gas per annum from imports – China's first LNG terminal in Guangdong with an annual handling capacity of 5.0b m^3 was launched in 2007 and three more will be built in Fujian, Zhejiang and Shanghai. If they have the same the same handling capacity as the Guangdong terminal, they will be able to handle 15.0b m^3 of imported natural gas a year.

- 35.0b m^3 of gas per annum from Russia - construction of the Altai natural gas transmission pipeline, to carry gas from Siberian to China, is expected to commence in 2008 and finish in 2011. It will transmit 30.0-40.0b m^3 of natural gas annually.

- 12.0b m^3 of gas per annum from Puguan – Sichuan's Puguan gas field, owned by Sinopec, is the major source of organic growth in the country's gas reserves. Its reserves are estimated at 356.0b m^3 and its production expected to reach 9.0b m^3/annum in 2008 and 12.00b m^3/annum in 2012. Puguan gas will be transmitted to Shanghai by the 1,702.0km Sichuan-to-Shanghai pipeline (川气东送管), which will be completed in 2010 and pass Sichuan, Chongqing, Hubei, Anhui, Zhejiang and Jiangsu. Its designed capacity is 12.0b m^3 per annum, but it can be expanded to 17.0 b m^3 with compression.

Natural gas allocation. Natural gas is produced according to targets set by the National Development and Reform Commission (NDRC). The NDRC also issues natural gas allocation plans to producers. Gas producers have to allocate gas to fertilizer producers, major cities and enterprises according to the allocation plan. Except the gas allocated to fertilizer producers, gas producers can determine the actual gas production and allocation volume.

Upstream pricing. The NDRC categorizes natural gas production wells into two types: I and II. The government determines the ex-factory price of natural gas from type I wells. The price can be increased or cut by 10.0% depending on demand. The government imposes a 10.0% ceiling (but not floor) on the ex-factory price of natural gas produced by type II wells. Pipeline transmission fees for pipelines constructed before 1991 are determined by the NDRC and for those built after 1991, fees are based on their capital expenditure and depreciation, end-users' affordability and the profitability of pipeline companies. On 1 November, the NDRC raised the ex-factory price of natural gas supplied to industrial users by RMB0.4/m^3, which shows the government's attempt to rationalize the use of natural gas resources.

Downstream pricing mechanism. The price of gas supplied to industrial users is commonly determined by distributors and end users. The price of gas supplied to residential households is determined by regional pricing bureaus. Any hikes by distributors must be approved by the local public hearing.

Disclosure of interests: SBI E2-Capital Securities Ltd. acted as the Placing Agent for China Oil And Gas Group in December 2006 and May 2007.