

## THE GROWING OPPORTUNITY FOR LNG IN CHINA

Natural gas consumption in China has been growing rapidly since 2006 and was 237 billion cubic metres in 2017. Domestic natural gas production has not kept pace, leaving substantial opportunity for LNG importers.

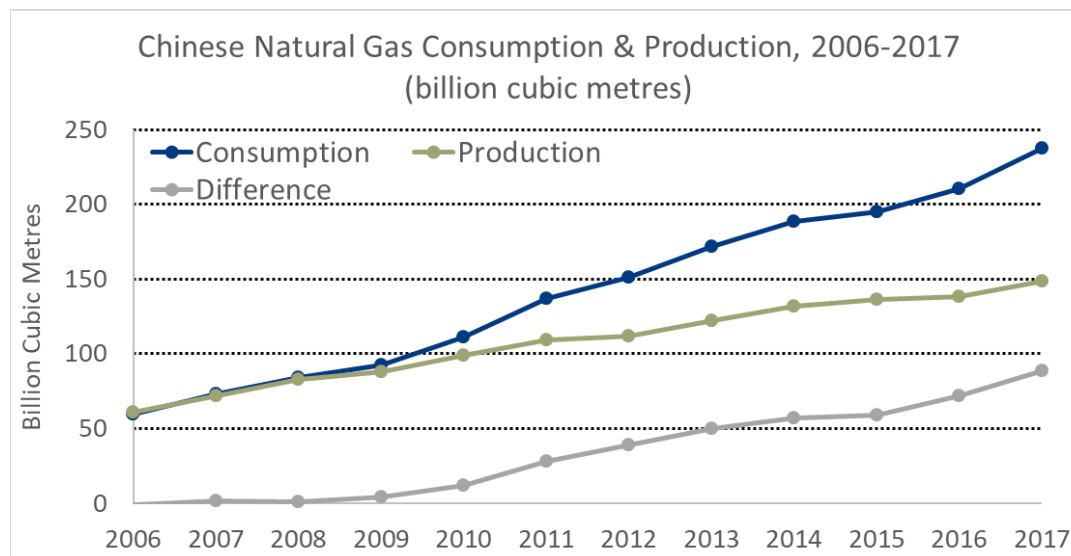
In 2016 the Chinese National Development and Reform Commission released the *13<sup>th</sup> Five-Year Plan for the Natural Gas Industry*, which set a goal of natural gas accounting for 10% of total primary energy consumption by 2020. China's total energy consumption in 2016 was equivalent to 3,053 million barrels of oil; natural gas accounted for 189.3 million barrels of oil equivalent, 6.2% of total energy consumption.

To meet the goal of 10% by 2020, China will have to increase its natural gas consumption by 382 billion cubic metres assuming total energy consumption is held constant.

China's domestic natural gas production has not kept pace with increasing consumption, leaving a gap that has been growing since 2008. To address this gap, China has begun importing significant quantities of both LNG and natural gas shipped by pipeline from central Asia.

In 2016, China imported 38 billion cubic metres (BCM) via pipeline and 34.3 BCM of LNG. Piped natural gas is sourced primarily from Russia, while LNG comes from a more diverse array of trade partners. Chinese pipeline capacity is nearing its limit, although the Power of Siberia pipeline, to be completed in 2020, is due to increase this capacity by 38 BCM. Even with this additional capacity, LNG imports will have to increase significantly if China is to reach its 10% target.

China's shift to natural gas has implications for global spot market prices. As a component of its implementation plan, China has been pushing households to convert to natural gas heating. While industrial users of



Source: BP Statistical Review of World Energy 2017 and Chinese National Development and Reform Commission.

energy have a relatively constant demand, able to be fulfilled through long-term contracts, household consumption is highly variable and so often requires purchases on the spot market to meet demand during peak periods. This increased demand pushes up global prices. Evidence of this phenomenon was seen in 2017, when Chinese purchases of short term LNG contracts on the Asian market pushed the price to \$10.05 USD per million BTUs, the highest seen since 2014. Growing demand for LNG imports, combined with potentially higher prices on the Asian spot market, presents significant opportunities for existing and potential LNG exporting nations. There is enormous potential for Canadian natural gas to supply the Chinese market. However, Canada is not currently positioned to take advantage of the opportunities in this market, despite numerous LNG project proposals. After a positive final investment decision, Pacific Northwest LNG cancelled the project. Two projects (Woodfibre and LNG Canada) may yet go forward, but are not guaranteed. Canada's tariffs on fabricated steel component imports are cited as a major hurdle for construction and final approval, along with tax burden (i.e., treatment of LNG plants under BC's carbon tax). Canada's lengthy regulatory process is also a factor.