

One Belt, One Road, and One Pipeline: China's New Approach to Energy Security¹

China is becoming a major force in global natural gas markets. Increasing energy consumption and environmental challenges have been leading to China's energy mix transformation. In order to move away from its heavy dependence on coal use, China is increasing the input of other sources such as renewables, hydro, nuclear and natural gas. Over the last 10 years, the share of natural gas in the country's primary energy mix has increased from 3.6% in 2009 to 7.4% in 2018. From 2009 to 2018, China's gas consumption trebled, while imports increased 15 times (from 8 bcm in 2009 to 121 bcm in 2018). The domestic production of natural gas has been growing during the last 20 years. But it doesn't satisfy the growing demand. By 2009 the country had become a net gas importer. The gap between the demand and production is expected to grow, which means that the import is to grow too. Today China ensures more than 40% of its gas demand by imports. According to the IEA projections, by 2040 China will be importing 369 bcm per year, which is 3 times more than today.

This paper explores the energy security concerns faced by China and examines the existing approaches to securing energy supply. The Western way of ensuring energy security is based on the global nature of the energy market. Alternatively to the West, China adopts a clearly mercantilist and geopolitical approach. Although there is the global LNG market, China is willing to tie itself to long-term contracts to ensure the uninterrupted energy supply and puts great economic and political efforts into developing inland pipeline infrastructure, obtaining access to gas fields and acquiring shares in companies and projects all over the world.

China also aims to diversify sources and ensure safety ways of their transportation. If we look at the volumes of LNG and gas imported by pipelines to China, we'll see that China doesn't rely on one or another option. According to the latest BP Statistical Review, in 2018

¹ This presentation is a part of the ongoing research project devoted to the comparative cradle-to-gate environmental life cycle assessment of Russian LNG and pipeline gas on China's market

China imported 40% of natural gas by pipelines and 60% as LNG and became the second-largest LNG importer in the world after Japan. Among the main suppliers are Australia, Qatar, Malaysia, and Indonesia. Beijing concerns about the growing exposure to seaborne energy imports, with LNG carriers passing through several choke points, such as Malacca, Sunda, Lombok and Makassar straits, have resulted in attempts to reduce its dependence on LNG and boost the presence of pipeline gas in its energy mix. There are three directions where China can deliver natural gas from by pipeline. From the west, China's first inland pipeline from Turkmenistan which went into operation in 2009, delivered 33.3 bcm in 2018 (capacity 55 bcm/y). From the south, another pipeline from Myanmar ensured 2.9 bcm in 2018 (capacity 12 bcm/y). Russia provides an obvious northern axis for China's diversification strategy.

Russian Gazprom has been in active negotiation with Chinese companies about gas sales to China since 2004. But it was not until 2014 when the 30-years contract between CNPC and Gazprom was signed. The gas supply via the Russian Power of Siberia pipeline began in December 2019. The Russian Power of Siberia has to offer 38 bcm per year coming from gas fields in East Siberia by 2025. The 6 bcm/y extension is under discussion.

On the question, whether the contract of 2014 was beneficial for Russia. Looking backwards, this was probably the only right decision as it allows exploiting stranded hydrocarbon resources of East Siberia, which given the price dynamics, otherwise were more likely to stay untapped. Access to China's market is of great importance for the development of East Siberian resources due to the low capacity of the domestic market. So, energy links between the two countries provide Russia with a lucrative new market and China with a reliable source for its energy needs.

Russia's contribution to the changing dynamics of China's energy security is supposed to increase in the coming decade – Russia's exports to China are projected to expand beyond the Power of Siberia link. Together with the perspective pipeline from Sakhalin, widely discussed Power of Siberia 2 and Trans-Mongolian pipeline routes and the expected expansion of supply via Power of Siberia the Russian gas may ensure as much as 110-130 bcm/y to reach the Chinese market by mid-2030s. The Russian pipeline gas will play a crucial role in ensuring the strategic reliability of supply.

This is no doubt a long-term view based on 'before-COVID-19' assumptions. In the light of the pandemic outbreak and decreasing demand, the future of energy supply, and LNG in

particular, remains unclear. The demand for LNG in China in the short-term will flatten or, which is more likely, decline. Given the 'overreliance' of LNG exporters on China, its strategic choices will affect the established situation in energy markets. At the same time with today's prices, serious disruptions may arise on producers' side as well leading to the lack of supply when it is needed. In this case, both exporting and importing countries will need to find a new equilibrium.