

# Boosting up the construction of natural gas reserves capability in China

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## Background

The National Development and Reform Commission of the PRC (the “NDRC”), together with four other governmental authorities, jointly issued the *Implementation Opinions on Accelerating the Construction of Natural Gas Reserves* (the “Opinion”) on 10 April 2020 to further enhance the infrastructure construction and storage capacity of natural gas and to promote the stable and sound development of the natural gas sector in China.

In recent years, China’s natural gas industry has developed rapidly, with continuous rapid growth in natural gas consumption, and gas storage facilities are of utmost importance in order to promote the dynamic balance of natural gas supply and demand and to enhance the capability of secure natural gas supply. However, whilst natural gas has gained increasing importance in China’s national energy system, its gas storage infrastructure construction lags behind. The gas storage capacity in China is significantly lower than the international average of 15% of the country’s total gas consumption. The lack of natural gas storage capacity has become a shortcoming in the safe and stable supply of natural gas in China and has greatly obstructed the development of the industry.

The NDRC and the National Energy Administration released *Opinions on Speeding up the Construction of Gas Storage Facilities and Improving the Market Mechanism of Gas Storage Peak Shaving Auxiliary Services* in April 2018, stipulating that all gas supply entities must have sufficient gas storage by the end of 2020, with gas supply companies to have a storage capacity no lower than 10% of the contract sales of that year, local governments at or above the county level to have storage capacity able to meet at least three days of gas demand, and urban gas enterprises to have a storage capacity of at least 5% of their gas consumption. However, the current progress of gas storage capacity construction is still slow in general. To address this issue, the Chinese government further issued the Opinion, focusing on solving bottleneck problems in the construction and operation of natural gas reserves, and putting forward measures and suggestions to promote the acceleration of gas storage facilities construction.

The Opinion elaborates the suggested directions of the construction of natural gas reserve as follow:

### 1. To optimize the construction planning, to establish and improve system standardization

The Chinese government will release a yearly list of significant gas storage facility construction projects, and local governments will issue special plans for the construction of gas storage facilities at the provincial level so as to avoid decentralized construction and ensure the safe operations of the gas storage facilities in the future. The Opinion also encourages regions with large differences in consumption value throughout the year and regions with rapid growth in demand to raise their construction targets appropriately, so as to further improve the capacity

of secured gas supply in these regions. The Opinion further suggests to accelerate the formulation and improvement of uniform industry standards for design, construction, acceptance, operation, and decommission, and to develop a standard system for gas storage facilities as soon as possible. Moreover, China aims to improve its information disclosure mechanism, in order to facilitate investors' access to relevant information required when making investment decisions of the construction of gas storage facilities.

## **2. To establish operation model and to improve the channels for return on investment**

Internationally, underground gas storage facilities usually operate independently in a market-oriented manner and generate revenue by leasing storage capacity and buying and selling natural gas stored. This will allow for investment value in gas storage facilities and thereby attracting more market players to invest in the construction of gas storage facilities. The Opinion proposes to promote the independent operation model of gas storage facilities. This means that the underground gas storage facilities would be independently accounted for, and operated with professional management and in accordance with market operation. Enterprises can fully utilize the changes in the market situation through market-based methods such as leasing storage capacity and utilizing seasonal price differences to recover investment and to obtain profits. For urban gas enterprises built for self-use purposes, the investment and operating costs could be included in the total consideration of gas distribution, and reasonable profits can be obtained. The increased costs of procuring natural gas for the gas storage facilities and the costs of increased storage capacity can be reasonably recovered through sales prices.

## **3. To deepen the reform of institutional mechanisms and to optimize the market operating environment**

The Opinion highlights the need to accelerate the interconnection and the fair access of gas storage infrastructures. Gas storage facilities shall be connected to the main pipeline network, and pipeline transportation companies shall give priority to connect and to protect gas transportation. In this way, the problem that natural gas "cannot come in, cannot go out" of the gas storage facilities can be resolved, and the potential issue of low use efficiency after completion can be avoided. Gas storage facilities will be able to fully realize its due value. Concurrently, the Central Chinese government will promote the development of a trading system for gas storage products and guide relevant trading centers to speed up its research and development of trading products such as gas storage capacity, and ultimately aiming to implement the public trading of gas storage services and to utilize the true market price.

## **4. To increase policy support**

The Opinion put forward a number of supporting policies from the aspects of land, taxation, finance, investment, etc. to encourage investors to invest in gas storage facilities and quicken the filling up of the gap of gas storage capacity deficiency. The Chinese government requires localities to guarantee the supply of land for gas storage facilities and to increase the overall land supply for construction; support local governments to provide special bond funds for eligible gas storage facilities, and to encourage financial institutions to provide multiple services to support gas storage companies to issue bond financing etc.; for the construction of gas storage facilities in important regions to guarantee gas supply for three days in the administrative area, investment subsidies will be granted from the central budget. Further, capable local governments are encouraged to introduce investment support policies.

## **5. To implement major responsibilities and to promote the completion of targets**

The Opinion proposes to strengthen the follow-up inspection of gas storage facility construction, and to require regular report on the progress of construction. Punishment and penalties in accordance with the law will be imposed on companies that failed to carry out their work, failed to fulfill their peak-shaving responsibilities, and caused large-scale suspension of gas supply for the citizens. When granting or changing gas operating licenses, local governments should include

the performance of gas storage responsibilities and obligations in the special licensing agreement. For gas companies that do not meet the gas storage capacity and project plan is not implemented, the gas operating licenses shall be withdrawn or not granted according to law. It is expected that the NDRC will complete the formulation of an assessment system for gas storage capacity construction targets by the first half of 2020.

Based on our previous professional legal practice experiences in energy sector, the release of the Opinion could provide more opportunities for energy entities, including overseas resources. Given the current situation of energy market, that the price of oil and natural gas continues to remain lower than expectations, and the requirement of gas storage is pushing forward, a presumably certain amount of gas breach could be compensated by upstream natural gas resources. Whilst it could take some time for gas storage construction, relying on the commercial reserves of the receiving terminal could make up for the construction period, and it is also important to coordinate the interconnection of different receiving terminals and make full use of the storage capacity.

### **Reconstruction of the national natural gas pipeline network**

The global natural gas reserves are abundant, and the consumption demand is increasing day by day. According to the news released by CNPC News Center, it is anticipated that by 2050, the global demand for natural gas will rise to 5.5 trillion cubic meters with an increase of about 64%.<sup>1</sup> At the same time, China is rapidly developing the natural gas market, with prospects for exploration and development, sustained growth in production and rapid increase in consumption.

According to *Several Opinions of the State Council on Promoting the Coordinated and Stable Development of Natural Gas* issued by State Council on 5 September 2018, the domestic output of natural gas could achieve 200 billion cubic meters or above by the end of 2020, which basically meets the development demand of the current domestic natural gas market. However, as the demand is rising continuously, and the import volume is increasing rapidly, the dependence of importing natural gas keeps climbing. The 13th Five-year Plan of China has aimed to form a gas supply capacity of about 400 billion square kilometers per year by 2020 to ensure the market demand, which means that the market demand will double the existing, and the construction of infrastructure such as natural gas pipeline network will follow synchronously. Taking reference from mature natural gas markets, such as the US and the UK, a mature market usually has well-established pipeline network construction, open trade, market allocation of resources and relatively complete functions of regulatory agencies. Comparatively, China's natural gas market is still in the early stage of growth, and is rife with some key issues, such as inadequate marketization, hiatus of upstream and downstream, and highly concentrated management and control.

Since 2017, China has taken several measures to start the reform of oil and gas system, starting with the release of *Opinions of Deepening the Reform of Oil and Gas System* issued by the State Council, explicitly stating the reconstruct of natural gas pipeline operation. Accordingly, the hinge would be setting up an independent national natural gas pipeline network to accelerate the diversity of upstream gas resources and the competitiveness of downstream, and ultimately to reasonably control the natural gas price and demand. On 9 December 2019, National Petroleum and Natural Gas Pipe Network Group Co., Ltd (“PipeChina”) was officially set up. According to the speech presented by Zhang Yuqing, the deputy director of National Energy Administration, on 31 July 2019 during the Energy and Finance seminar in Shanghai, the establishment of PipeChina could be the new opportunity for the development of China's natural gas market, providing a fairer platform for the industry correspondingly.<sup>2</sup> PipeChina could also give impetus to the friendly competition of upstream and downstream with an increase of variety in resources, and further form the market-oriented pricing rules. Subsequently, Zhejiang province recently announced that it will reconstruct the natural

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<sup>1</sup> <http://news.cnpc.com.cn/system/2019/08/02/001739444.shtml>

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gas pipeline network and issued the *Notice on Key Points of System Reform in Energy Field of Zhejiang Province* on 10 February 2020, stating that they will restructure relevant natural gas companies in order to achieve the pipeline network independence, and separation of pipeline transportation and sales.

Working with the national and provisional energy groups, we have found increasing activities in the procurements and investments in the liquified natural gas (“LNG”) and the LNG receiving terminals, gas storage and transmission facilities. It is expected that the LNG demand will increase even further because of low crude oil price during the first quarter of this year. With increasing participations of natural gas market entities, especially for the third-party entities, it is conducive to improve the supervision and to optimize the structure of natural gas market. However, on the other hand, except for various preponderances, challenges are still worth taking into considerations, and one of the key issues is whether the regulations could keep up with the burgeon of the market and implement to work effectively.

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