

Will there be a New Monopoly in the Chinese Gas Market-Doctrines of Unbundling and Network Access

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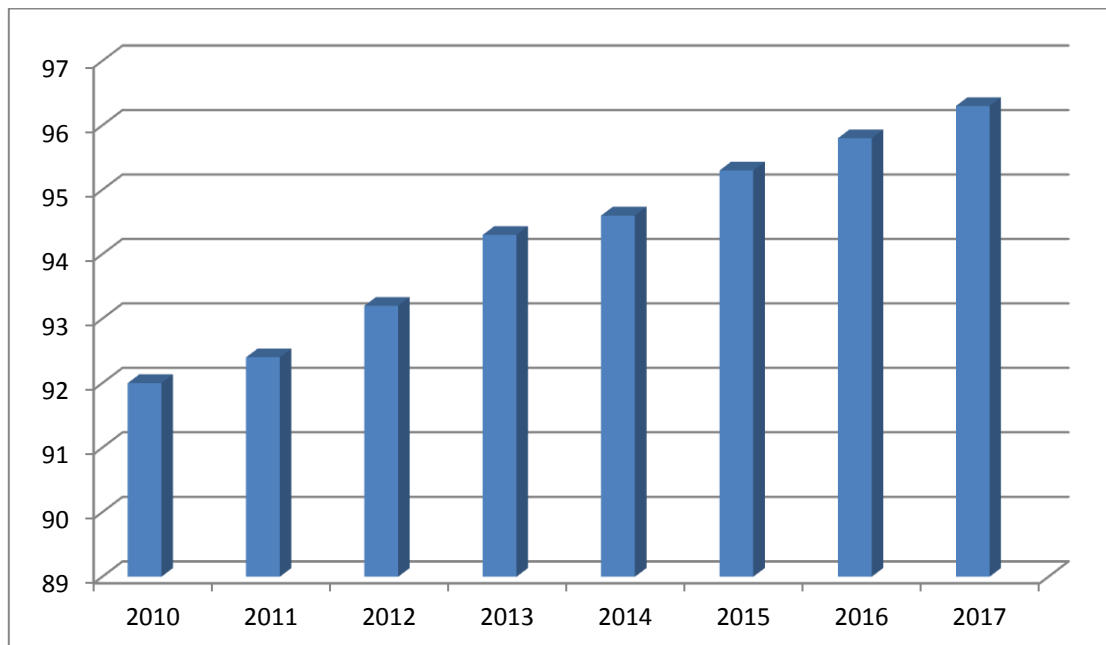
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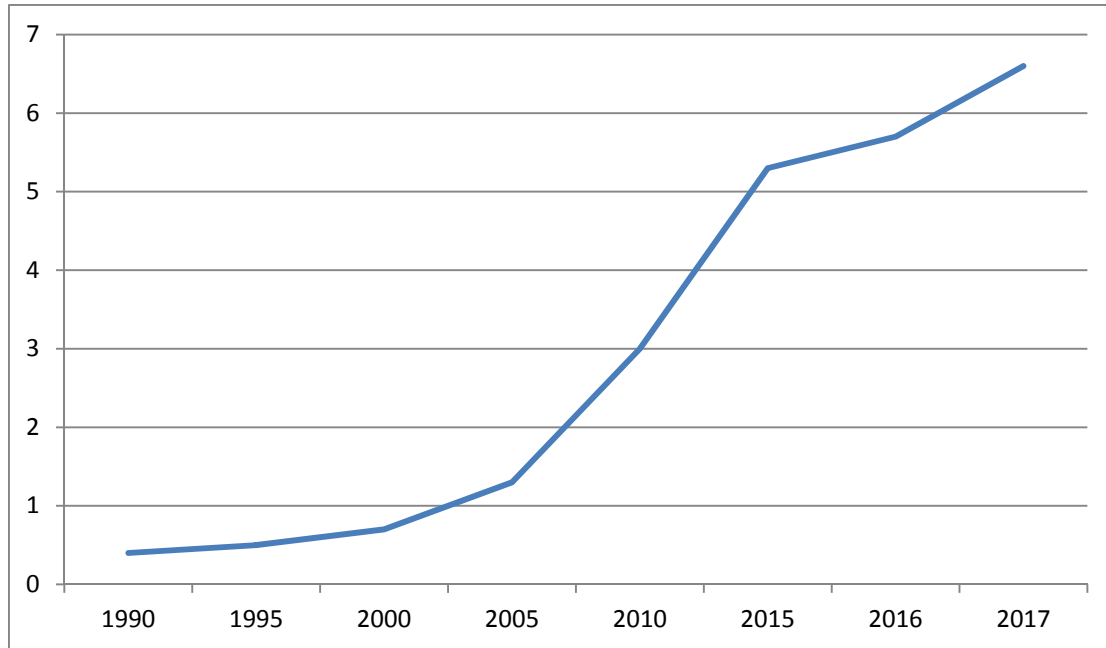
Abstract. Recently, the Chinese central government has re-constructed the whole supply chain of gas, in order to provide market competitions. The measure of reform is to create a nation wild gas pipeline, which was owned by the upstream energy enterprises separately. The reform is to demolish the disadvantages of current monopolistic urban gas supply chain in China. But the missing of related regulations on the unbundling of energy enterprise will decrease the accomplishment of the political goal. Only when the creation of new pipeline company could follow the doctrines on unbundling, a possible new monopoly inside the Chinese gas market would be vanished.

Introduction

Traditionally, the gas supply inside ChinaPR is monopolized by those regional state-owned gas enterprises. They will purchase the energy resource from upstream companies, which are also monopolistic. Since the gas market, especially inside urban areas, has been fully constructed, the disadvantages of monopolistic supply structure have been shown more obviously and are calculated as obstacles to the deepened reforms. The following graphic shows the accomplishment of urban gas supplement from 2011 to 2017 in China:



Therefore, the Chinese central government has re-constructed the whole supply chain of gas, in order to provide market competitions. The measure of reform is to create a nation wild gas pipeline, which was owned by the upstream energy enterprises separately. However, the reform will certainly impact on the interests of those urban gas suppliers. Since there are detailed regulations on the reforms, especially on the unbundling of monopolistic upstream energy enterprises, it will be worried whether the reform will create a national monopoly in the gas industry. This article is then to illustrate the doctrines on unbundling to ensure that the reform would be in favor of market competitions. The following graphic indicates the increase of gas demands in ChinaPR:



Structure of Urban Gas Supply and Impact of the Reform

Basically, the urban gas supply in China is regional monopolized by local state-owned gas companies, which are generally not involved in the supply chain beyond their territories. For example, the Beijing Gas Corporation is, according to the official introduce, is a state owned enterprises with a history of 60 years. It is the largest single city gas supplier in China and its annual sales revenue ranking is the first in China and the second in the world. The main business of those regional gas companies is as retailer to the end consumers.

As the regional gas suppliers do not own gas fields or have the capacity of gas extraction, they must purchase the resource from the three monopolies in the oil and gas sector, namely the CNPC, SINOPEC and CNOOC. Those three giant energy suppliers in China are, however, do not own gas distribution networks which connect with the end consumers.

As part of the reform inside the Chinese energy industry, a national gas pipeline corporation will be operative in the coming years, which is owned by those three giant energy suppliers. After the reform, the pipeline corporation will own and operate both transportation and distribution networks of gas in China. As the giant energy suppliers would then have the capacity to connect with the end consumers, the reform will certainly change the whole supply chain of gas and will bring those urban gas companies at edge.

Price Structure before the Reform and Impact of the Reform

Gas sales is the business mode that urban gas companies sell natural gas to end customers through pipe network, that they purchased from upstream enterprises. At present, the prices of upstream natural gas are generally fixed and issued by the government. That means the wholesale price of gas could be altered by the market demands with negotiations. The retail price of natural gas for downstream users, namely the end consumers, shall be determined with authorization from the local government with calculation of the affordability of residents. Since the gas has the characteristics of public services, the revenue of gas selling is stable. The revenue of regional gas company is mainly affected by the gas sales volume.

As the reform will provide the upstream gas suppliers to connect with the downstream consumers directly, the revenue margin would be enlarged. However, the urban gas companies will be cut off from the possible of profits. They will be even isolated from the supply chain, because the end

consumers could purchase the energy from upstream suppliers – the pipeline corporation, when the market is opened.

Doctrines of Unbundling

According to the international standard of unbundling of monopolized energy enterprises, the pipeline company as a natural monopoly shall obey several doctrines of its independency, which are to ensure the possibility of market opening and competitions.

Fully Independency of Pipeline Operation

As gas pipeline is the natural monopoly is its economical characters, the owner of pipeline will have the capacity to monopolize the whole supply chain. Thus, the independency of pipeline is crucial for the market and every competitor. Also, there are some sub-criteria on the independency of the gas pipeline.

Independency as Legal Person. The pipeline company shall be registered as independent legal person with full commercial capacity. The establishment of a legal person needs to meet the registration requirements of the company law. That means the owner will be separated from the business operation and its deciding process.

Financial Independency. The pipeline company shall have its own capital and can operate the capital as its own. It also means that the parent company cannot control the accounting book of the pipeline company. Investments and the profits will be calculated into the accounting book of the pipeline company directly.

Personnel Independency. The pipeline company shall employ its business personnel. The staff and the management personnel shall be separated from the parent company. That means there should not have any one who is employed both by the parent and the pipeline company.

Information Independency. The pipeline company shall open all business operational information to the public and network users. Because the pipeline is the single channel connecting with the up and downstream users, information of networks operation will be decisive for the market players, when they are operative inside the competition. Informational independency will help the small scale players to share identical information with pipeline parent company. That will provide fair market environment for every competitor.

Ownership Unbundling. According to the European unbundling regulations, the pipeline corporation shall not be owned by any single legal person, especially the parent company. Legally the parent company can hold less than 17% share of the pipeline corporation. This regulation is to ensure that the business operation of the pipeline will not be in favor of associated gas retailer inside the energy enterprise.

Free Access to Gas Networks

When the reform will encourage the market competition, the gas networks (the pipeline) shall then be opened to every possible market player. This openness of networks is called as the Free Access. The pipeline usage will be compensated only by a standardized usage fee, in accordance with related regulations. The free access to the gas networks will provide the retailers to be connected with their consumers. As the usage fee is stable, the market player could calculate their business profits by setting on the price differential between wholesale and retail. Thus, the market player would alter the retail price of gas to take advance in the market competitions.

Transparency of Gas Network Tariff

The precondition of possible market competition inside the gas industry is that the network operator will not alter its tariff to different network users. That means the gas transportation service will be based on a standardized tariff and no one inside the market could be charged variously. This graphic indicate the current gas tariff level in China.

Upstream	XinJ-YiL-YiN	XinJ-YiL-H	XinJ-CJ	BY-LN	GS-JQ-HL	XinJ-TL-SW	QH-SB	NX-ZW-GT
Downstream								
XinJ-YiL-H	0.0094	0.0000	-	-	-	-	-	-
XinJ-BT-JH	0.0343	0.0249	-	-	-	-	-	-
XinJ-YiL-KT	0.0682	0.0588	-	-	-	-	-	-
GS-JQ-HL	1,447.00	1,382.00	773.00	1,062.31	-	-	-	-
GS-JYG	1,824.14	1,759.14	1,150.14	1,502.14	377.14	-	-	-
GS-ZY	2,021.93	1,956.93	1,347.93	1,699.93	574.93	-	-	-
NX-ZW-GT	2,430.00	2,365.00	1,756.00	2,042.30	983.00	-	1,122.40	0.10
NX-ZW	2,499.00	2,434.00	1,825.00	2,112.24	1,052.00	-	-	-

Resource: author collection

The tariff illustrated in the table shows that the average level of gas transportation is round about 10 to 15 percent of the gas whole sale price. That is the general level in the world.

Conclusion

Even though the reform is to demolish the disadvantages of current monopolistic urban gas supply chain in China, the missing of related regulations on the unbundling of energy enterprise will decrease the accomplishment of the political goal. Only when the creation of new pipeline company could follow the doctrines on unbundling, a possible new monopoly inside the Chinese gas market would be vanished.

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