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“Current Situation of China’s Natural Gas Market and its Direction of Development”

Natural gas consumption in China in 2003 came to 30 billion cubic meters, an extremely low level in global terms. China’s natural gas market has just started to grow. Natural gas consumption in China is mainly for the chemical industry, fuel for industrial use, city gas, power generation and so forth. Consuming regions are currently limited to places near producing regions, but will spread equally in the future due to construction of the West-East Gas Pipeline. Production increased to 34 billion cubic meters in 2003, but its share of overall primary energy is only 3.2%, which remains low in comparison to the vast amount of confirmed reserves. China has built a main pipeline that is over 20,000 meters in length and underground reserve facilities of over 1 billion cubic meters. Furthermore, prices originally decided by the government are now set by the market after the construction of the West-East Pipeline. The government has attached importance to natural gas, and has been trying to increase the ratio of natural gas in energy in the 10th five-year plan, but there still are many problems. For example, the strategic positioning and policies of the natural gas industry are not clear. Moreover, there is not sufficient natural gas to cover all demand. Furthermore, infrastructure such as the national-scale pipelines is incomplete, and enforcement of development of the natural gas market, establishment of price-deciding system as well as development of laws to control industry (designing of the market system) are also required.

There are three stages in the development of the natural gas market. The first is the early period. This is followed by the development period and then the maturation period. With completion of the West-East Pipeline, China moved from the early period and entered the development period. The period from 2002 to 2008 is considered to be in a time of transition to the development period. By sector, use for city gas and power generation will expand. As China has suffered from an oil shortage, natural gas is important as its substitute. Demand for city gas is estimated to increase to 60 billion cubic meters by 2020, even excluding the influence of urbanization. If the influence of city gas is taken into consideration, the increase may be even larger. At present, power generation is mainly by coal, and high prices have prevented natural gas from replacing coal. In the future, China’s demand for natural gas for power generation is estimated to reach 60 billion cubic meters, but it accounts only for 5% of total electricity production.

In total, China's demand for natural gas will reach 160 billion cubic meters to 200 billion cubic meters in 2020, which accounts for about 6% of total primary energy. About 60% of total demand is from city gas and power generation. In 2008, domestic production will become insufficient, and natural gas will have to be imported.

In order to promote development of the natural gas industry in China, I would like to recommend the following. First, the positioning of the natural gas industry must be defined. It is preferable to have 10% share in primary energy in order to work as an independent industry. Second, international cooperation should be established for acquiring resources. In particular, cooperation with Russia, Central Asia, the Middle East, and Asia-Pacific countries should be strengthened, and at the same time, ties with consuming countries such as Japan and South Korea should be made concrete. As for infrastructure, establishment of pipelines and the introduction of LNG are important. As for designing of the system, administrative functions should be strengthened and related laws should be developed. It is also important to develop a system where the supply-demand relationship is decided by prices. Furthermore, preferential policies for penetrating natural gas are required, such as tax reforms, environmental policies, cooperation with the downstream sectors, flexible fund-raising aid and so forth.