Seize the Opportunity, Guarantee the Supply, Realize the Rapid and Steady Development of the Oil and Gas Industry

China Petroleum and Chemical Corporation
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China Petroleum and Chemical Corporation (SINOPEC) is a kind of oversized multinational company involved in the development, storage, and delivery of oil and gas, oil refining, petrochemical gas, and the sale of refined oil. SINOPEC has carried out the exploration of oil and gas in 14 provinces, autonomous regions, and municipalities, and is also searching for investment opportunities in Africa and the Middle East. In the period of the tenth five-year plan and the coming few years, SINOPEC will treat the increase of resources as the most important task, further enhance the fundamental status of its upstream, strengthen the exploration and development of oil and gas, continually discover new reserves, raise recovery factor, eventually to increase the oil and gas output fast and steadily. At the same time, put the strategy of “going out” into practice and participate in the exploration and development of oil and gas abroad with great enthusiasm.
1, Actuality and strategy of SINOPEC’s resources
SINOPEC is kind of oversize multinational company involved in development, storage and delivery of oil and gas, oil refining, petrochemical gas and the sale of refined oil. By the end of 2002, it has possessed totally 368.4 billion RMB worth of assets, oil surplus recoverable reserves 450 million tons, gas surplus recoverable reserves 95.6 billion m3, crude oil processing ability per time 132 million tons, ethylene throughput 2.8 million tons. In 2002 the corporation gained the sale revenue of 215.9 billion RMB and profit of 20.6 billion RMB.
SINOPEC has carried out oil & gas exploration in 14 provinces, autonomies and municipalities, that is, the registered area of more than 800,000 square kilos. SINOPEC is also seeking opportunities in Africa, Middle East etc. The production of crude oil and gas saw 380 million tons and 5 billion m³ respectively in 2002. SINOPEC has mastered the unique technologies of exploration and development for complicated petroleum reservoirs, furthermore, set up a comparatively systemized series of technologies in China’s complicated continental facies sedimentary basin. During recent years, exploratory well success ratio and the finally recognized recovery factor have increased by a big percentage. The SINOPEC’s upstream is rapidly developing in a brand-new outlook.
In the period of the tenth five-year, even the following several years, finding more resources will be regarded as the most important task by SINOPEC. The ratios among three segments are greatly unreasonable, although SINOPEC is involved in the three segments. The proportion of upstream is so little that it only supplies about one third of crude oil SINOPEC needs. According to statistics, SINOPEC refined 105 million tons of oil in the year of 2002 including the part of 54.16 million tons imported, that is, 51.5%.
Since the international situation is unstable and the oil security is not guaranteed, SINOPEC finds its operational risk bigger than before. So SINOPEC has such a development strategy in future as follows: further enhance the fundamental status of the upstream, enhance the exploration and development of oil and gas, increase substitutable resources, increase new storage, enhance recovery factor, and increase the output of crude oil rapidly and steadily; expand exploration and development, make good use of the resources of gas; optimize the resources collocate, arrange the two sorts of resources from home and abroad properly, make good processing of crude oil; insist on the principle of “more than one importing country”, “more than one channel”, “more than one assortment”, decrease the risk of oil importing; improve the in/export system of crude oil and patent oil;
carry out actively the “going out” strategy, and participate actively in the exploration and development of foreign crude oil and natural gas, make use of foreign technique and capital, speed up the exploration and development of domestic oil and natural gas, increase the storage of domestic crude oil and decrease the risk from the price and security of foreign oil and natural gas; improve greatly the pipeline transport of oil and gas, carry out the “quick, stable and sustainable” strategy, economize on oil and gas, cut down the loss from self use, protect the environment, make good use of the resource, ensure the harmonious development between resource and environment.
2. The groundwork and foreground for the development of SINOPEC’s upstream

According to the evaluation of the second oil and gas resources general investigation in China, there are 152 oil and gas bearing basins and areas in mainland of China, and it is estimated that total oil reserve nationwide is 94 billion t, gas is 38 trillion m3, total petroleum equivalent weight is 132 billion t, the areas of secondary-rock is 4.35 million km3. Along continental shelf, it is estimated that oil reserve is 24.6 billion t, and gas is 8.2 trillion m3. According to related analysis, total recoverable reserve nationwide is 15 billion t, and gas is 14 trillion m3, which is equivalent to that of the United States generally.
Oil and gas resources in mainland of China mainly spread in the eastern and western, where their proportions of oil reserve to total land petroleum reserve are 53% and 37% respectively. Gas resources spread in the eastern, middle and western, where their proportion to total land gas reserve is above 80%. Offshore oil and gas resources mainly centralize in Bo Hai, Eastern Sea and Southern Sea. By the end of 2002, the three oil companies in China have proved oil reserve 22.7 billion t, gas reserve 2.86 trillion m³, the proved ratios of oil and gas 24% and 7.5% respectively. According to that 60%-70% petroleum resources worldwide are proved finally, the exploration potential of land and offshore in China is great.
Exploration and development of oil and gas in the land of China are open to SINOPEC and CNPC and offshore exploration and development are open to SINPOPEC, CNPC and CNOOC except CNOOC has the special right to cooperate with foreigners. The branch companies of SINOPEC are located mainly in the eastern and southern of China where the industrial and agriculture are advanced, the demand of oil and gas is the biggest, relatively perfect sale networks have been formed, and market potential is notable. All of these provide very reliable downstream market for the development of SINOPEC’s upstream.
It was put forward in 16th CPC that in the first 20 years this century, a higher level well-off society, which will benefit several billion people, will be built up, and compared with that of 2000, the GDP in 2020 will increase by 3 times. Petroleum and petrochemical are main supporting industries. Moreover, SINOPEC is a main producer and dealer of oil & gas products in China. So, SINOPEC has to undertake the obliged responsibilities. According to the goal of GDP increasing by 3 times in 20 years in building a well-off society in an all-round way in China, the growth rate of above 7.2% per year will be required. Assumed that the elasticity coefficient of increments of domestic consumption of patent oil to GDP growth is 0.5 and ethane to GDP growth is 1 by 2020, there will be an increment largely in oil production, gas production, crude oil process, patent oil and gas sales and ethane production in SINOPEC, which, therefore, will provide god-given opportunities for the development of oil & gas.
Assumed that the elasticity coefficient of increments of domestic consumption of patent oil to GDP growth is 0.5 in 2020, oil consumption will be 0.4-0.45 billion t or above in China, and gas consumption also increase largely, estimated about 120-200 billion m3, comparing to 2000, increased by 3 or 4 times. At that time, it is estimated that oil and gas production including land and offshore in China will be about 0.2 billion t. and about 100 billion m3 respectively. At same time China will be a main import county of oil and gas (including LNG) in the world, therefore oil supply safety will be concerned seriously by government of China. So, the only way to develop oil and gas industry of China is accelerating the development of oil and gas industry, carrying out the strategy of “going out”, widening the area to discover oil and gas all over the world and ensuring national economy growth fast and stable.
According to the analysis above, SINOPEC should set development goals corresponding to the current environment, meet the requirements of the development of modern industrialization, integrate the facts of China, and form a development road featured in high science & technique, better economic benefit, lower resource consumption, environment protecting, labor resources fully utilizing. By 2010, SINOPEC will have been an energy chemical corporation with main section standing out, excellent assets, stock owner diversified, science and technology innovation, managing scientifically and capacity to compete worldwide. By 2020, SINOPEC will try to keep 1/3 production of petroleum process come from the oil produced itself, and the percent of gas in production oil & gas above 30%.
Eastern oil fields including Shengli Oil Field in Shandong province and Zhongyuan Oil Field in Henan province, through petroleum progressive exploration and development, and studying subtle oil fields mainly, discovered new reservoirs and series continuously, increased recoverable reserve, at the same time in order to realize stable oil production, reservoir describing accurately and enhancing recovery factor should be strengthen. Western areas, key area for SINOPEC to increase reserves and production, should focus on the basins of Tarim, Zhun Geer, Hexi Corridor and Liupan Mountain etc. and aim at discovery of big oil & gas fields. In southern China, vast areas spreading with formations of carbonate marine facies abundant in source and reservoir rocks, will be the main objects to discover oil and gas in the future.
3. The only way to accelerate the development of the upstream of SINOPEC is “going out” and “inviting in”. Compared with main oil production countries such as Middle East, Russia etc. the petroleum resources of China are insufficient, what’s more, formations are complexity so that it’s difficult to explore and develop. Because the increase of oil and gas can’t meet the requirement of the development of national economy, SINOPEC must insist on “going out” strategy, sharing the resource of the world. Through several years’ groping, SINOPEC has the conditions of “going out”. Combining the projects of risk exploration with the projects of enhancing recovery factor of old oil fields, establishing several oil supply bases and investing prudently, SINOPEC will be successful. SINOPEC also would like to cooperate with foreign companies and consortiums, learn from strong points to offset weakness each other, develop jointly, bear risks jointly and share benefits.
Oil and gas resources in China have not been fully explored and utilized and SINOPEC also would like to undertake risk explorations, taking advantage of advanced technologies of petroleum exploration and development worldwide. For the petroleum exploration area belonging to SINOPEC, the proved reserve rates of oil and gas resources are only 18.7% and 1.7% respectively and recovery factor only 28.7%, so there are great potentials in exploration and production increment. In the coming years, there are very good opportunities and environment of investment in China for all foreign oil companies.
Only cooperating with excellent petroleum and petrochemical companies over the world, can the SINOPEC improve its management and technologies, develop rapidly in the field of oil & gas exploration and development and get through the drastic competition.

Prospecting new century. There are good developing opportunities, both China and Japan, in fields of petroleum, petrochemical and natural gas. This year, petroleum and petrochemical economists come from China and Japan meet again in Tokyo to discuss the development of petroleum and petrochemical, which will promote the development of petroleum industry of Asia even all over the world more. Let’s work together to strive for creating a wonderful future.
Introduction to the author: Mr. Zhao graduated from Beijing Petroleum Institute in 1968, and was vice-economist general of Planning Department of CNPC. From 1998, he is vice-director of Development and Planning Department of SINOPEC.
THANK YOU!

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