

## CHAPTER 4

### CHINESE POLICY TOWARDS ENERGY SECURITY

#### **4.1 Government Policies towards Energy Security**

Over the last two decades, expansion of China's industrial base has put pressure on China's energy sector to meet increasing demand. Industrial demand currently accounts for approximately two thirds of energy end use. At the start of his annual report to the National People's Congress on 5 March 2005, Prime Minister Wen Jiabao identified energy shortages as one of five sets of problems, which if left unchecked, could threaten China's continued economic growth.

According to Daniel Yergin, energy security aims to assure adequate, reliable supplies of energy at reasonable prices and in ways that do not jeopardize major national values and objectives. These include sovereignty and the normal functioning of the economy.

China has become a net oil importer since 1993. China imported 100 million tons of crude oil in 2003, an increase of 20 million tons over the previous year. It made China the world's second largest oil importer and consumer, after the United States. China's energy demand and energy imports have increased substantially in recent 5 years and will continue to grow in future. Increasing dependency on the world market and the tension between energy supply and demand clearly show that energy is becoming a major constraint for China's future economic development.

Since October 2003, in fact, the oil shortage in China has expanded from the relatively developed eastern and southern areas to the northern part. At the end of October, among the over 5,000 gasoline stations in Guangdong, a large energy-consumption province, around 1,000 were short of oil products and many closed

down.

The oil shortage takes top priority in China's energy security and China attaches a great deal of attention to it. As the economic lifeline, oil is vital to China where heavy industry leads much economic growth. The worrying factor for many is that oil is not the only energy commodity in short supply in China. The recent high demand for electricity and coal in particular, is creating unprecedented demands on the system. The simultaneous shortage of oil, electricity and coal made many people worry about whether an energy crisis has emerged in China.

Although the Chinese government reported that China experienced a reduction in energy consumption growth, the energy analysts predict that China's oil imports will continue to grow. International observers project China will import 5.9-6.9 million b/d in 2020, constituting 63-70 percent of oil consumption. Liu Shijin, Director of the Research Department of Industrial Economy under the Development Research Center of the State Council, China's cabinet, said the unexpected energy shortage might take it right time to build China's long-term energy strategy.

According to Dr. Kelly Sims Gallagher, Director of the Energy Technology Innovation Project of the Belfer Center for Science and International Affairs at Harvard University, China faces a multitude of energy-related challenges: the need for energy for sustain economic growth, increasing foreign dependency for oil and gas, severe urban air pollution, provision of energy for the poor, global climate change, massive acid deposition and the need to access advanced energy technologies to address all of these challenges. Though Chinese government officials traditionally conceptualize energy security as the need to acquire enough energy to maintain economic growth, for Sims, energy security also means not doing intolerable and irreversible damage to the environment.

Despite increasing oil imports, China will continue to rely on domestic resources for most of its energy needs. This is largely because of its abundant coal reserves and coal-based economy. According to the international Energy Agency

(IEA), coal constituted 69 percent of China's total primary energy demand in 2000 and is projected to decline to 60 percent by 2030. Oil will remain China's second most important fuel over the next two decades, with its share of the energy mix projected to increase slightly from 25 percent in 2000 to 27 percent in 2030. The proportion of Chinese energy consumption constituted by natural gas is projected to increase from 3 percent in 2000 to 7 percent in 2030.

As early as 1993, Li Peng defined the objectives of the country's energy policy as "to secure the long-term and stable supply of oil to China. This fundamental objective guided most of the energy decisions taken during the rest of the decade; energy security even topped the list of strategies to develop the energy sector in the 2001 "Tenth Five-Year Plan of Economic and Social Development". To reach this goal, the plan proposes, to encourage the use of advanced technologies, to increase national production, to develop the gas industry, to improve the competitiveness of the SOOEs on the international markets, to build up the national strategic oil reserve, to improve the conservation and efficiency level of oil consumption, to improve the regulatory and overseeing framework of the industry, and to deepen the reforms of the oil industry.

During his address to the Chinese National Assembly Ma Kai, State Council's Minister of the National Development and Reform Commission -China's top planner, stressed the importance of the construction of a "conservation-minded society" as the way to sustainable, scientific development.

According to the new policy paradigm, energy security means guaranteeing access to the energy resources needed for economically and socially sustainable development while ensuring that the production and use of these resources do not impact negatively on the environment.

The SDPC, renamed the National Development and Reform Commission during the March 2003 session of the National People's Congress (NPC), is the most important government agency involved in energy policy. The NDRC plays a critical

role in the drafting of five-year energy plans, sets energy prices, and vets projects larger than US\$30 million, which includes most energy projects. The oil security strategy outlined in 2002 by NDRC and SETC calls for a number of measures aimed at increasing China's control over its energy supplies, including investment in overseas oil fields, the construction of a strategic petroleum reserve (SPR) system, "shutting in" oil fields in western China for emergency use, and the development of Chinese naval and air forces to protect China's energy supplies.

The construction of a SPR is the most important step China can take to cope with an oil supply disruption. It is also one of the most contentious energy security topics under discussion. A SPR is the most effective way to prevent the political use of oil as a weapon and to minimize the impact of supply disruption.

China has initiated numerous policies to cope with its increasing energy needs, including stepping up exploration activities within its own borders, diversifying beyond oil to access other energy resources, such as nuclear power, coal, natural gas and renewable energy resources, promoting energy conservation and encouraging investment into energy-friendly technologies such as hydrogen-powered fuel cells and coal gasification.

### **China's Energy Policy: The 11th Five-Year Program (2006-2010)**

According to the Chinese government, reducing the country's energy demand and improving energy efficiency is extremely important. In the proposal for the 11th Five Year Program, the blueprint for the economic and social development of the country from 2006 to 2010 issued last month, the government made clear the goal to reduce its per unit GDP energy consumption by 20 percent at the end of 2010.

Starting in 2006, the Outline of the 11th Five-Year Program for National Economic and Social Development (2006-2010) sets major goals for national economic development in the following five years:

- Stable development of the national economy. Maintain an annual GDP growth of 7.5 percent, and double the 2000 per-capita GDP; create 45 million employment opportunities for urban residents and farmer workers respectively; keep prices stable; and maintain the balance of international revenue and expenditure.
- Optimizing and upgrading the industrial structure. The industrial, product and enterprise structures are to be more rational, and the added value of the tertiary industry will increase by 3 percentage points in the GDP, with an employment growth of 4 percentage points of the total labor force. Enhance the independent innovative capability, increase the proportion of the expenditure on scientific research and experiments to 2 percent of GDP, and develop enterprises with independent intellectual property rights and famous brands, and strong international competitiveness.
- A marked growth in the utilization of resources. The energy consumption for per unit GDP will decrease by 20 percent; the water consumption for per-unit industrial added value will decrease by 30 percent; the utilization coefficient for agricultural irrigation water will grow to 0.5; and the comprehensive ratio for solid industrial residue used will increase to 60 percent.
- Enhancing the capability for sustainable development. Maintain 120 million ha cultivated land; intensify the protection for fresh water, energy, and important mineral resources; and put under control the deteriorating trend of ecological environment, reduce the total volume of released major pollutants by 10 percent, increase the forest coverage to 20 percent, and control greenhouse gas emission.
- Perfecting the market economic system. Make breakthroughs in the reform and mechanism setup of the administration, state-owned enterprises, finance and taxation, and banking, and greatly enhance the capability of market supervision and social management; coordinate the opening-up and domestic development in a still better way, and promote the opening economy to a new level.

- Further improving people's life. An annual increase of five percent for the per-capita disposable income of urban residents and for the per-capita net income of rural residents respectively, an overall growth in the quality of life of urban and rural residents, and remarkable improvement of the conditions of housing, communication, culture and environment.

