

## China Energy Diplomacy and its Implication for Global Energy Security

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### Introduction

As one of the five essential elements for surviving of people, energy functions as the important strategic material for national economy and social development. The security of energy supply is not only associated with the rapid growth of economy in China, but also with the overall security and strategic development of the nation. In the era of global economic integration, the economy of China is developing into an important part of the world economy. The sustainable development of Chinese economy is closely related to the sustainable development of the world economy. Since Chinese energy security is a very important part of global energy security; China energy diplomacy certainly has great implication for the whole global energy security.

Owing to China's rapid economic growth, along with its increasing demand for energy optimization, China's crude oil consumption has multiplied. In 2010, the consumption of oil will reach 350-380 million tons; the consumption of natural gas will increase from 24.5 billion cubic meters to 100-120 billion cubic meters. However, in 2010, domestic supply will have a limited growth, reaching the amount of 170 to 190 million tons. Thus the increasing demand for oil will mainly depend on import. Domestic production of natural gas will increase drastically, reaching 80 to 100 billion cubic meters in 2010, while partial import is still needed to meet the demand.<sup>[2]</sup> Thus, energy diplomacy has been more and more important in China Energy security.

The "Petersburg Declaration" of G8 Summit 2006 has laid out the principles, aims and proposals for action, which constitutes a very meaningful frame for a global, cooperative energy policy such as open, transparent, efficient and competitive markets, transparent, equitable, stable and effective legal and regulatory frameworks, enhanced dialogue on relevant stakeholders' perspectives, environmentally sound development and use of energy etc.

The article tries to illustrate current situation of China energy development, to identify the problems Chinese government has been facing, to elaborate the key elements of the respective China energy diplomacy. The objective is to fathom the commonalities between China energy diplomacy and global energy policy, to identify the compatible interests, to carve out areas of potential conflict. Through comparing the frame for a global, cooperative energy policy outlined in the "Petersburg Declaration" of G8 Summit 2006 with China energy diplomacy, we can explore

under what kind of circumstances and conditions China would be willing to contribute to the solving of the global energy problems.

## Review on the Development of Energy Industry of China: Achievement and Problem

Based on the development over the past more than fifty years, the energy industry of China has achieved the outcome that catches the attention of the entire world. The capacity of energy supply has been strengthened step by step. In 2005, the total output of primary energy in China reached 2.06 billion tons of standard coal, which was 87 times of that in the period shortly after the founding of China as well as 3.29 times of that during the early period of the implementation of the reform and opening up policy. The output of coal amounted to 2.19 billion tons, ranking the first in the world for years. The output of crude oil reached 181 million tons, ranking the sixth in the world. The output of natural gas amounted to 50 billion cubic meters. The power generation and installed capacity exceeded 500 million KW. The annual power generation reached 2474.7 billion KWh, averagely ranking the second in the world. The renewable energy has been developing quickly over the past few years. The installed capacity for SHP stations reached 38 million KW. The total solar collector area of solar water heaters was equivalent to 80 million square meters, which accounted for over half of the amount in the world. The installed capacity for nuclear power plants reached almost 7 million KW. The annual output of methane amounted to around 8 billion cubic meters. The amount of methane- generating pits for family use reached more than 17 million. [3]

In addition, the structure of the energy consumption was optimized. In 2005, by totally consuming energy of 2.225 billion tons of standard coal, China became the second largest energy consuming country in the world. Over recent years, depending on actively modifying energy consumption structure, the general trend has been characterized by the increasing drop of ratio of coal consumption and gradual increase of that of consumption of high-quality clean energy. From 1990 to 2005, the ratio of coal consumption dropped from 76.2% to 68.7%, that of oil/gas consumption increased from 18.7% to 24%, and that of consumption of hydroelectric and nuclear power jumped from 5.1% to 7.3%. [4]

Since 1990s', with the improvement of the level of industrialization, urbanization and market orientation in China, the consumption of oil/gas has been increasing. In 1993, China turned from an exporter of crude oil into a pure importer. After that, the amount of export has been increasing considerably annually. In 2005, the net import reached 136 million tons. The dependence on imported crude oil was up to 44%. It is anticipated that the demand of oil/gas by Chinese market will keep increasing for a long time in the future. The conflict between supply and demand will be

increasingly obvious.

Year	2000	2010	2020	<b>China Oil Demands, Net Imports and Degree of Dependence on Imports</b> <a href="#">[5]</a>  Generally speaking, the increase of demand for oil and natural gas by China increases much faster than that of the domestic supply, and the gap between supply and demand increases annually.
Demand volume (Mt)	224			
Energy Research Institute of NDRC		335~357	430~475	
IEA		377	552	
EIA		340	525	
Import volume (Mt)	69.6			
Energy Research Institute of NDRC		155~187	240~295	
IEA		230	425	
EIA		185	380	
Degree of dependence on imports (%)	31.0			
Energy Research Institute of NDRC		46~52	59~62	
IEA		61	77	
EIA		54	72	

Mostly four solutions are available for the problems: First, keep making efficiency of use of oil/gas as the top priority, increase the efficiency of use of oil/gas, control and lower the increase of demand and supply, and save energy through efficiency of use. Second, keep centering on the domestic condition, increase the effort of prospecting and developing, make use of the fundamental assurance of the domestic resources, and increase the amount of energy by exploring the potential. Third, keep making development in a variety of aspects, increase the boost via policy, actively make developing of technology, greatly develop and use new energy and renewable energy, and promote development in multiple aspects and increase the amount of energy. Forth, efficiently use international oil/gas resources.

In order to efficiently use international energy resources, China must further improve the understanding of the importance, necessity and urgency of the international energy cooperation, accurately grasp the reality, possibility and opportunity of starting the international energy cooperation, firmly control the important opportunity for strategic development in the following fifteen years (till 2020), firmly establish and adopt the new notion of energy security that is characterized by mutually beneficial cooperation, diverse development and coordinated guarantee, keep making domestic development as a whole and active international energy cooperation, improve the ability to seize the opportunity in international energy market and avoid the risk in the market, set up multiple, stable and reliable system of assuring energy supply, and maintain the security of international energy in the open pattern. This is the important strategic choice for China at present and a long time in the future. The will and practice of joining in the bilateral and multilateral energy cooperation has pushed Chinese government to set up its own energy diplomacy strategy.

## **Analysis of China Energy Diplomacy: Policy and Practice**

# **Policy**

In the early time, the scale of energy diplomacy of China was small and was not emphasized very much in the overall diplomacy of the nation. With the booming of Chinese economy and rapid increase of demand for imported energy, to greatly expand the channel for supply of imported energy has become an important task for Chinese energy strategy. According to the latest statistics of international energy organizations, in 2003, the consumption of oil of China exceeded that of Japan for the first time, ranking just next to that of the United States as the second in the world. The consumption of oil on the daily basis reaches 5.46 million barrels (the figure for Japan is 5.43 million barrels), accounting for 6.5% of the global consumption, and just next to that of the United States (25.5%). And the ratio of dependence on the imported oil is close to 1/3.[\[6\]](#)

Due to the special strategic value of oil, the world center for oil production has become the focus that is competed by different kinds of political forces. Motivated by the demand for surviving and developing of each country in the world, the competition for the oil will be very intense and cruel. China will face the considerably increased pressure from competition for oil resource. And the status of oil security in the future will be more difficult. In regime to meet the demand for the energy by the rapidly developing economy, the Chinese government starts to step up the

construction of the national oil security supply system centering on national oil reserve and diverse sources of imported oil. That means to lower the dependence on the sole oil producing region and sole oil transport route. Energy diplomacy then became an important part of the general diplomacy of the nation. Over the past few years, it even has been the important part of summit diplomacy. Meanwhile, the diplomatic feature of the international activities of the key Chinese energy enterprises becomes increasingly obvious.

In March 2006, Outline of the 11<sup>th</sup> Five-Years Plan for National economic and Social Development of the People's Republic of China approved at the Fourth Session of the Tenth National People's Congress clearly says: Expand cooperation in international oil/gas developing on the basis of equality and mutual benefit, actively mingle with international energy system, fully use international market, and assure the security of energy supply of China.[7] In July 2006, Chinese president Hu Jintao emphasized at G8 Summit in St. Petersburg: "The fundamental content of energy strategy of China is that keep making energy use efficiency as the top priority, center on the domestic condition, make diverse development, protect environment, strengthen the international mutually beneficial cooperation, and make effort in building up the stable, economic and clean energy supply system. We shall strengthen the cooperation with all energy producing and consuming countries under the principle of equality, mutual benefit and win-win to jointly maintain the global energy security." [8] The aforesaid documents and talks all embody the requirements for energy diplomatic strategy by Chinese national energy strategy.

The "11<sup>th</sup> Five-Year Plan" makes the detailed planning for the economic and social development of China at present and for a period in the future. According to the planning, the national developing strategy of China can generally be summarized as: properly handle different problems arising during development, maintain the good tendency of economic development, promote the strategic adjustment of economic structure, guarantee the quick, stable and sustainable development of economy, assure increase of GDP by several fold in 2020, meet the demand of the people due to increasing improvement of their living standard, guarantee the stability and harmony of society, decrease the environmental pollution caused by economic development, and assure the improvement of ecological environment. In December 2006, the central economy work conference proposed the new requirement of "good and fast" for economic development. It emphasized that only the realization of "three coordination", i.e., coordination of speed, quality and return, coordination of consumption, investment and export, and coordination of population, resource and environment, can guarantee the good and fast development. The strategic task of allowing the "good and fast" development of national economy proposes the higher requirement for the sustainable development of energy and environment. [9] For this reason, Chinese national developing strategy is the basis for formulating Chinese energy diplomacy.

Energy diplomacy also functions as the important boost for adoption of "Going- Out" strategy, which is an important part of national development strategy. The development of international energy relationship can be promoted through energy diplomacy so as to create favorable international operating environment for energy enterprises and strongly boost other enterprises to develop international markets, increase the sales of commodities, undertake engineering projects, and promote the advancement of technology of the enterprises through introduction of technology

and joint research and developing.

Therefore, China energy diplomacy bears difficult tasks, which are inclusive of maintaining the adequacy and stability of abroad energy supply, ensuring the safety of transportation, and also boosting the improvement of energy technology, the raise of energy efficiency and the protection of environment.

## Practice

The international energy relationship is the relationship among the international bodies of energy activity. Diverse development refers to developing energy relationship in diverse directions, forms and fields. The international energy relationship functions as the foundation and carrier for each international energy activity body to realize its energy interests and seek other interests related to energy. As a large energy importer and a newly booming large country, China must greatly develop the energy relationship with different targets in a variety of forms and fields to guarantee the realization of its international energy interests.

By now there has not been a very clear and complete China energy diplomacy policy existent, but this does not mean that Chinese government has no energy diplomacy. With an objective of diversely developing energy relationship, Chinese have accomplished a lot in energy diplomacy practice. The followings are two examples, which can give a general picture.

One example is China energy cooperation with Central Asian countries, which are energy suppliers. Central Asia is one of China's core areas of international energy cooperation. Over the course of more than ten years' exploration, experimentation and practice, a pattern has formed in the gas and oil cooperation between China and Central Asia countries. This pattern is characterized by investing primarily in Kazakhstan; devoting great effort to building gas and oil pipelines between China and Kazakhstan,[\[10\]](#) and actively taking part in the gas and oil exploitation of other countries, such as Turkmenistan and Uzbekistan, etc. With China's increasing dependence on imported energy, the realization of the "pluralization" of gas and oil sources and the "safety" of energy transportation have become imperative to ensuring state energy security. Under such circumstances, Central Asia's status in China's energy strategy deployment has been heightened further.

Another example is China energy cooperation with India, who is the same energy consumer as China. Though both are energy competitors, China and India have started to cooperate in exploiting oil in Kazakhstan, jointly entering into the Sudan oil exploitation project, and thus becoming

business partners. They have also begun to work together in Iran. In future, China and India should be hand in hand, taking part in international energy exploitation and distribution, diversifying risks, so as to gain access to a larger energy supply than is currently available. In June 2005, the ministers of Foreign Affairs from China, Russian and India held an informal meeting in Vladivostok. Russia, released a Joint Communiqué stressing that the three countries will develop cooperation in the fields of agriculture, energy and high technology, and will take it as an opportunity to build a strategic energy triangle. One of the most important motives behind India's application for membership in the Shanghai Cooperation Organization is to seek opportunities in the cooperation of oil and gas exploitation in Central Asia.

In order to understand China energy diplomacy, we should put it in the wider background of international energy regime.

### **International Energy Regime: The Opportunities and Challenges**

International energy regime is the institutional arrangement of the relationship among the international energy power, which is mostly shown in the contrast of forces, relationship and rule mechanism of different kinds of international organs of energy campaign. The international energy regime is an important part of international political and economic regime, which is regulated by the international political and economic regime, and meanwhile, has important impact on the international political and economic regime. The currently adopted international energy regime displays as a balance between force and interests of key bodies of international energy campaigns, which is the outcome of the long-term competition between energy exporters and importers and different kinds of international energy organizations.

Affected by the long-term serious balance losing in international strategic pattern, the currently adopted international energy regime mostly is made and led by developed countries with the United States as the leader. Meanwhile, with the increasing shortage of oil/gas resources, the increasing jump of status of oil/gas exporters plus the long-term joint struggle, the rights and interests of energy importers get more and more effort that shows the strengthened union of different parties and struggling for the more self interests in the currently adopted international energy regime. The effort to seek the common interests with different forces of interest orientation via dialogue and compromise is strengthened at the same time so as to be favorable for balance of the interests among different parties in some way.[\[11\]](#)

The currently adopted international energy regime is changeable. The currently adopted international energy regime is not only influenced by economic factors, political, economic and

social factors of resource countries, but also by international political factors particularly change of international strategic pattern, adjustment of relationship among countries and change of international rules. Meanwhile, it is also influenced by the unexpected events like armed conflicts and natural disasters and international financial activities. Due to the constant change of the aforesaid factors, the international energy regime is also changeable.

The unreasonable and unfair aspects of the international economic regime are very obvious in the international energy regime. The developed countries and the international energy organizations led by them mostly control the making of rules for different international energy activities. And most of the developing countries particularly the newly emerging countries mostly can only accept the rules passively and the rights and interests of these countries are not shown in an appropriate way. The developed countries have important political, economic and military impact on key oil/gas producing regions, controlling the main oil transport corridors and strategic points in the world. Some countries control the energy security of other countries. The multi-national companies monitored by the developed countries control lots of oil/gas resources across the world. However, the newly emerging countries can only purchase the “second-hand” resources with high price or make developing in the politically unstable regions. In fact, inequality exists in the use of global energy resource. The developed countries have important right of speech in the international oil/gas market. The newly emerging countries usually have to import oil/gas with much higher price.

The new energy security notion of China has won reorganization from more and more countries. President Hu Jintao said at G8 Summit in St. Petersburg, Russia in July 17, 2006: “Most of countries cannot get the assurance for energy security without international cooperation. In regime to assure the global energy security, we should establish and adopt the new notion of energy security of mutually beneficial cooperation, diverse development and coordinated assurance.[\[12\]](#) The Chinese officials from the Ministry of Foreign Affairs said during statement of foreign policy of energy: “China supports to create stable political environment for global energy security, to solve disputes and conflicts via dialogue and consultation according to U.N. Charter and rules of international laws, and to develop the mutually beneficial and win-win international energy cooperation, which is the foundation and goals for Chinese foreign policy of energy”.

The new notion about energy security is in conformity with requirement of the era and is popular with more and more countries in the world, and will surely produce enormous promotion for the formation of new international energy regime. It is under the promotion of new Chinese notion of energy security and with the deep development of globalization of economy, more and more countries realize the inseparability of international energy market. The awareness of strengthening cooperation and jointly maintaining global energy security is generally strengthened.

## **Ensuring Sustainable Development: the Most Important Principle of China Energy Diplomacy Implement**

For ensuring sustainable development, China energy diplomacy will undoubtedly carry out the guidelines of “the coexistence between energy development and eco-safety, the coexistence between energy supply and technology progress”. Thus, to secure access to advanced and affordable energy technologies and to promote cleaner and renewable energy sources will be China energy diplomacy’s focal points.

Energy supply and technical progress have direct connections with the sustainable development of economy and society. The realization of long-term stability of the energy supply is the central goal of sustainable development of energy, and the improvement of technology is a major channel to enhance the energy efficiency and to make up the shortage of energy resources. Energy diplomacy can not only ensure a stable energy supply, but also play a major role in improving the technical progress.

Energy diplomacy can ensure technological progress in various aspects: The improvement of energy-saving technology as well as the new and renewable energy technology; the diversification of energy utilization, the optimization of industrial and consumption structure, reduction of energy consumption and pollution. Regard the developmental tendency, holding the commanding height of development technology and the authority to formulate technical standard for new energy resources will be the focus of international competition in the field of energy technology, especially in the condition that the technical development of new energy resources will have a more significant influence in the sustainable energy development. Energy diplomacy must play a prominent role in this field through effective international energy technology cooperation. By now, China and EU countries have made great progress in energy technology cooperation.

There is an inherent contradiction between energy development and eco-safety. Under no condition should we seek energy development at the expense of the eco-safety or delay the former for the sake of the latter, we must find a well-balanced way for them to coexist harmoniously. Considering the gradually rigorous eco-environment at present, it is necessary to slant on the protection of eco-safety appropriately.

China is fronted with tremendous ecological stress at home. China has a large population that mainly concentrates on the eastern area, where is wealthier and also suffering more serious environmental pollution because of the great increase in energy consumption. Our country has an

unreasonable structure of energy consumption, higher proportion of energy with high degree of environmental pollution such as petroleum and coal, and lower proportion of clean energy such as natural gas and nuclear energy. Our country's energy is used at relatively low efficiency, the energy-saving technique lag far behind the international advanced level, the index of energy consumption far exceeds that of the developed country and is higher than the world average level.[\[13\]](#)

The main ways to realize the coexistence between energy development and eco-safety are to conscientiously carry out the Energy-Saving Law, the Renewable Energy Law, the would-be-passing Energy Law and other administrative statutes as supplements; to adhere to the principles of "ecology acceptance" and "ecology priority" in the fields such as energy exploitation, transportation and processing; to implement the "Green GDP Strategy", to promote the international technical cooperation among enterprises in the fields of discharge-reducing, energy-efficiency, as well as the development and utilization of renewable energy; to effectively maintain the eco-environment safety, to gradually reduce the dependence on import petroleum; to establish a clean, secure, economical and reliable energy supply system worldwide in the future; to fully utilize the international discharge-reducing and trade mechanism.

In the term of eco-safety, our energy diplomacy will pay close attention to the acquisition of clean energy, the introduction of advanced technology of energy-saving and pollution control; to stringent screening on the foreign investment, taking the requirements of environment protection as the hard line standard for the entrance of foreign investment and enterprises, gradually changing the industrial structure that the high-energy-consumption and high-polluting enterprises make up a high proportion; to the international cooperation in the field of e-safety, obtaining financial and technical assistance for environment protection through "clean development mechanism" ; to the establishment and perfection of relative laws, rules, and systems of punishment and prize, supervising that energy enterprises should strictly meet the requirements of eco-safety in their business activities both abroad and at home; to the participation of international exchange of eco-safety with striving to enhance the international consensus and cooperation with developed countries in the field of dealing with climate change, practically carrying out the documents and regulations such as the National Program of Dealing With Climate Change as well as Energy-Saving and Discharge-Reducing Comprehensive Program. In a word, we should do our part in contribution to global management of environment.

## **Conclusion**

As one of the five "Outreach States", with the largest population in the world, China is facing

much more fierce challenges. So the seven core aims of the Action Plan like increasing transparency, Predictability and Stability of Global Energy Markets, Improving the Investment Climate in the Energy Sector, Enhancing Energy Efficiency and Energy Saving, Diversifying Energy Mix, Securing Critical Energy Infrastructure, Reducing Energy Poverty and Addressing Climate Change and Sustainable Development are extremely important for China. We can find that the new notion about energy security proposed by Chinese president Hu is the theoretical principle for China energy diplomacy policy formulation, which is almost completely compatible with the spirit the Action Plan possesses. So long as all the countries, no matter what kind of countries they are, e.g. developing or developed, energy affluent or not, can strengthen energy dialogue, seeking common ground while accepting the existing differences, the aims of the Action Plan will be achieved.

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[1] Dr. Xu, a research fellow of Center for International Energy Security, Renmin University of China.

[2] The data comes from: “ China Industry Annual Report ”, China Economic Information net, <http://www.ceiceo.cn/Exweb/2005Report/www/AdInfo.asp?Id=6#石油>, cited in Xu Qinhua, *New Geopolitics: Central Asian Energy and China*, Beijing: The World Contemporary World Publishing House, 1997.

[3] The data comes from The Ministry of Land and Resources P.R.C.

[4] Ibid.

[5] The data comes from IEA, *China Energy Outlook 2002*, and DOE/EIA *International Energy Outlook 2002*.

[6] Ren Haiping, Yang Qinglong, ‘New Change in World Energy Geopolitical Structure’, *China Military (Use) to Civilian (Use)*, April, 2004; Ni Jianmin ed., *National Energy Security Report*, Beijing: People’s Publishing House, pp.153-156.

[7] <http://politics.people.com.cn/GB/1026/4208451.html>.

[8] [http://news.xinhuanet.com/newscenter/2006-07/18/content\\_4846539.htm](http://news.xinhuanet.com/newscenter/2006-07/18/content_4846539.htm).

[9] <http://finance.people.com.cn/GB/71364/5141487.html>.

[10] CNPC Oil Pipeline from Kazakhstan to China Xinjiang began to transport oil since the May of 2006.

[11] The Petersburg Declaration has reflected such kind of trend in present international energy regime, exemplified energy cooperation spirit and expressed a strong will for a better international energy environment.

[12] [http://news.xinhuanet.com/newscenter/2006-07/18/content\\_4846539.htm](http://news.xinhuanet.com/newscenter/2006-07/18/content_4846539.htm).

[13] It is a tough task, which is set forth in China’s “Eleventh Five-Year Plan” that reduces 20 percent of energy consumption per GDP and 10 percent of the discharge amount of the primary pollutant.



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