# CHINA AND ENERGY SECURITY IN CENTRAL ASIA

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This paper is divided into three parts: China's energy policy and energy development strategy; Central Asia's significance for China's overseas energy development strategy; and Central Asia's energy security and energy development.

## I. Adjustments in China's Energy Policy and Energy Development Strategy

China has now surpassed Japan as the second largest energy consuming country, next only to the United States. In 2006, China imported 145.18 million tons of crude oil, making another record in history.[1] It is expected that by 2010, China could import 180 to 200 million tons of crude oil, over half of its total consumption.[2] Meanwhile, with the steady rise in energy consumption, environmental pollution as well as energy waste will increase, presenting a host of serious challenges to the government and society.

In the face of such a situation, China has begun to gradually adjust its energy policy and energy development strategy, as reflected in the following five areas:

(1) Energy production in the western part of the country is being encouraged, while in the eastern part it is becoming stabilized. To ensure adequate domestic production, the old oil (including gas) fields in eastern China, some of which are already peaking out, are now giving way to the emerging fields in the west, with the latter becoming the new focus of energy development. Meanwhile, energy output, such as the gas produced in the west, is being transported to the eastern part of the country as a corresponding measure. Energy development is thus becoming a key component of China's national strategy for "developing the country's west."

(2) The energy consumption structure is being remodeled. In China's energy mix, the proportion of coal is to decrease from its current level of 65%-69%, while that of oil, gas, hydropower and nuclear power will increase from their current levels of 20%-25%, 3%, 6% and 1%, respectively. It is expected that by 2020, coal will account for 54%, with oil increasing

[1] See: Website of the General Administration of Customs of the PRC [http://www.customs.gov.cn].
[2] See: *Oriental Morning Post* (Shanghai), 16 February, 2005.

to 27%, gas to 9.8%, and hydro and nuclear power to 9.1%. Of course, new sources of energy will be developed as well, just as clean coal technology will be promoted.

(3) A national energy reserve system is being built. Strategic energy stockpiling will not only control the national economic losses caused by any sudden break in energy supply, but will also help to stabilize the market when energy prices undergo a sudden hike. Since the turn of the century, China has begun building its strategic energy reserve system.

(4) Energy saving is becoming one of the top priorities. At the moment, China's energy consumption per GDP dollar is three times higher than the world average, and the economic losses as a result of the low energy utilization rate is as high as $120 billion a year.[3] The Chinese government is taking various measures to change the situation, such as promulgating the Renewable Energy Act, revising the Coal Act, enforcing energy-conservation criteria for buildings, substituting diesel engines in vehicles for gasoline-run engines, popularizing coal-based gas hybridization technology, drawing up energy-saving criteria for newly manufactured vehicles, closing down excessive energy consuming facilities, etc.

(5) Emphasis is being placed on active energy development overseas. While sticking to the principle of relying mainly on domestic energy resources, China has embarked on the road of developing oil and gas overseas, expecting to diversify its energy import channels. This issue will be specially addressed here.

China currently imports oil and gas from over 30 countries. As evidenced by the import figures of recent years, these countries include in particular Saudi Arabia, Iran, Angola, Russia, Oman, Sudan, Yemen, Indonesia, Australia, Thailand, Malaysia, Congo, Kazakhstan, Venezuela, Libya, etc. In terms of geographic shares, about 60% of the Chinese energy import comes from the Middle East, passing through the highly insecure Malacca Strait. Therefore, a key objective of China's overseas energy development strategy is to ensure the diversification of oil and gas imports and their transportation routes. To achieve this objective, it is necessary to go beyond the mere purchase of energy products by directly engaging in the international markets of energy development and transportation.

Since the 1990s, Chinese enterprises have begun to make their presence known on the international market of energy investment and development. The CNPC, CNOOC, and SINOPEC, as the leading Chinese companies operating in the world energy market, have invested in dozens of major energy projects around the world. On the whole, the overseas operations of Chinese companies are oriented in five directions: the Middle East, Central Asia-Siberia, Indonesia-Australia, Africa, and Latin America. Especially remarkable achievements have been made in projects in Kazakhstan, Sudan, Venezuela, Indonesia, Australia, and Iran.

## II. Role of Central Asia in China's Overseas Energy Development Strategy

Central Asia occupies an especially important role in China's overseas energy development strategy. This is primarily because Central Asia has unique geographic advantages among all those areas where Chinese companies make their overseas energy investments. As distinct from the other four directions, Central Asia is a source of energy supply that demands no protection from any ocean navy.

[3] See: *Business Week*, 11 April, 2005.

As China is still unable in the near future to build up an ocean navy strong enough to protect its oil shipping lines, this nearby source is obviously of great strategic significance for China's energy security. Indeed, Central Asia even has the potential to open a land transportation route for Chinese energy import from the Middle East. Secondly, the rich energy resources in the region will be able to meet China's energy needs for a long time to come. The Caspian Sea and its continental shelf are known as the third largest area in the world with profound energy reserves waiting for development. Kazakhstan alone has proven oil reserves of 4.6 billion tons. It is expected that its oil production will reach 100 million tons in 2010, a large part of which is certainly to be exported. The natural gas reserves in the Caspian area are also abundant. Turkmenistan alone has proven reserves of 12-21 trillion cubic meters of natural gas. Given such rich energy resources, it is understandable that Central Asian states wish to expand their energy market. The good news is that China is a fast growing consumer market for oil and gas, and such complementation provides a solid base for large-scale energy cooperation between China and Central Asia. Furthermore, Central Asia needs capital and technology in particular for its energy development. In this regard, China is a good partner with its over one trillion foreign exchange reserves and financially strong and technologically competent large companies for energy development and processing. There are obviously favorable conditions for China to participate in energy development in Central Asia and Siberia as well.

Thus it is right for China to gradually move into the energy development market in Central Asia. In September 1997, the CNPC was granted the right to participate in the development of the Aktiubinsk and Uzen oilfields in Kazakhstan, signifying the formal entry of Chinese enterprises onto the energy development market in the Caspian basin. Now, after years of operation in Kazakhstan, the CNPC has the capability for producing over five million tons of oil annually, aside from accumulating experience in cooperation with Kazakhstan partners. In October 2005, the CNPC successfully acquired Petro Kazakhstan (PK), a Kazakh oil company headquartered in Canada, making further progress in investing in the Central Asian energy market.

After several years of construction, the oil pipeline from Kazakhstan to China finally went into operation in May 2006. The pipeline's projected capacity is 20 million tons per year, which will be a big jump over the annual amount of 500 thousand tons handled on railways. By completion of the second phase of the pipeline, the final capacity will reach 50 million tons per year. President Nursultan Nazarbaev remarked at the launching ceremony, "when I suggested building this pipeline in 1997, everyone thought it was a crazy idea … but today, we are to initiate the operation of this 1,000 kilometer-long pipeline claiming $800 million. The whole region will become dynamic and the economy will undergo development as a result."[4] This is the first pipeline in the history of Central Asia that goes to China and may reach the Pacific Ocean via China. For China, this is also a breakthrough in its overseas energy development strategy, since it is its first pipeline to the west and the first cross-border pipeline involving China. It is worth noting that this pipeline passes right along the ancient Silk Road that once promoted the interchange between the West and the East. Today, this Silk Road has assumed a new look in acting as a Eurasian "energy bridge" closely connecting China and Central Asian states.

In the meantime, there are numerous other energy projects either going on or being planned between China and Central Asia. China and Kazakhstan are actively promoting a gas pipeline between the two sides. In January 2005, the two countries held their first round of negotiations regarding the gas pipeline, and the project has been developing smoothly since then. By 2015, natural gas output in Kazakhstan will reach 50 billion cubic meters, but its domestic consumption will not exceed 16 billion cubic meters, while China will remain a major gas consumer. This means great potential for gas

[4] *Nezavisimaia gazeta*, 20 December, 2005.

cooperation between the two countries. According to the information office of a Kazakhstan energy company, Kazakhstan plans to export 8-10 billion cubic meters of natural gas to China after 2008. If the China-Kazakhstan gas pipeline is connected to China's domestic west-to-east gas pipeline, Kazakhstan gas will be able to reach Shanghai via Xinjiang and other Chinese provinces, and even finally reach Japan and South Korea.

Besides, China and Turkmenistan are promoting the joint development of natural gas and the construction of a pipeline for transporting this gas. Turkmenistan and China signed an intergovernmental agreement in Beijing in April 2006 on the construction of a gas pipeline between the two countries with the capacity to pump 30 billion cubic meters of gas per year, which will start in 2009. During President Gurbanguly Berdymukhammedov's recent visit to Beijing in July 2007, a further agreement was signed to fulfill this project.[5] China has also signed an agreement with Uzbekistan to build a gas pipeline of 530 kilometers between the two countries.[6] Aside from oil and gas, hydropower generation has also been put on the cooperation agenda. The water and energy resource consortium formed by Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, etc. has decided to involve China as a major partner in its business.[7] Key projects like the Tajik 500-kV power transmission grid financed by China are already making substantial progress.

China is adopting the following four policy principles for its energy development in Central Asia.

- First, ensuring regional security and stability is a precondition for energy development and energy security. China would like to join multilateral cooperation to guarantee security and stability in the region so that good conditions are created for energy cooperation. Efforts in this regard include: resolving various disputes and conflicts in the region by peaceful means; supporting the initiative to establish a nuclear-free zone in Central Asia; fighting extremism and terrorism; and cracking down on weapons smuggling, drug-trafficking, and other cross-border crimes.
- Second, Chinese firms are being rendered assistance in order to encourage their participation in energy development in Central Asia, especially in energy development cooperation with the member states of Shanghai Cooperation Organization. The government will play a facilitating and coordinating role in investments in Central Asia by granting preferential tax policies, providing consular services, and protecting the legitimate interests of Chinese citizens as well as corporate entities.
- Third, fair competition and international cooperation are both to be facilitated. China would like to conduct competition on an equal basis with all the countries and groups involved in energy development in Central Asia and is also ready to undertake any form of cooperation with them in the spirit of reciprocity. On the other hand, China is opposed to excluding any country from this sort of international cooperation and is also opposed to any attempt by any country or group of countries to dominate or monopolize the energy development market in Central Asia.
- Fourth, regarding the alignment of the oil and gas pipelines, China holds that it should be sorted out by adhering to the principles of mutual understanding, mutual concession, and mutual benefit. The interests of all the parties concerned should be taken into consideration. China opposes the addition of any political or ideological factor to the ultimate solution, as evidenced by the choice of a certain pipeline alignment, with the aim of rejecting or punishing a particular country.

[5] See: *Financial Times*, 19 July, 2007.
[6] See: *Oriental Morning Post*, 1 June, 2007.
[7] Xinhua News Agency (Beijing), 11 October, 2002.

# III. Energy Security in Central Asia: Current Situation and Future Prospects

The disintegration of the Soviet Union and the emergence of independent states in Central Asia have helped to open up Central Asia's oil and gas resources to the outside world. In this "open door" context, all interested countries have an equal opportunity to participate in the exploitation of energy in Central Asia.

However, energy security in Central Asia still faces serious challenges, just as the energy development in the region faces a series of barriers.

- Firstly, there are certain existing or potential clash points in Central Asia and its neighboring areas. They include the internal antagonism in Georgia, the Nagorno-Karabakh conflict, the Kashmir conflict, etc., all of which have a long historical past. Meanwhile, the Iraqi war has given rise to a new wave of terrorism and the return of the Taliban and al-Qa'eda in Afghanistan and other neighboring countries; extremist forces have won support in the poverty-stricken Ferghana Valley; the domestic situation in Kyrgyzstan and Pakistan has been restive due to internal political tension; and drug-trafficking, weapons smuggling, cross-border crimes, and other non-conventional security issues abound in the region. All these factors undoubtedly have a very negative impact on attracting investments for energy development in Central Asia.
- Secondly, the business environment in Central Asia is still far from ideal. Such noneconomic factors as red-tape, lack of law-based rule, a highly inadequate financial system, corruption, mafia groups, and organized crimes are greatly disturbing normal economic and energy cooperation.
- Thirdly, the available funds are still far from sufficient, with neither full-scale international financial cooperation nor substantial loans granted. Energy projects in Central Asia are by nature massive projects like oil and gas pipelines, and such projects demand huge financial investments. Following the increasingly keen competition for energy development in the region, it has become more and more difficult to enlist financial support for these massive projects from the international financial market.
- Finally, there is a host of technical impediments as well. For example, there are disputes over the demarcation and division of the Caspian Sea and relevant resources; geological inspection and pipeline construction face various technological difficulties and problems in this geographically complex region; the ecological environment in the region is deteriorating as a result of human factors; etc.

These problems can certainly be resolved. But one country cannot reach a resolution on its own, this requires joint regional and international cooperation by all the countries in the region.

Guaranteeing regional security and stability is a precondition for energy development and energy security. China, Russia, the Central Asian states, the U.S., the EU, East Asian countries like Japan and South Korea, South Asian countries like India and Pakistan, the ASEAN countries, and most Islamic countries in the Middle East do in fact have common interests in this area. These interests are mainly reflected in such aspects as fighting terrorism and extremism, especially bringing the antiterror war in Afghanistan to its successful conclusion; preventing the proliferation of weapons of mass destruction, including the proliferation of nuclear weapons and nuclear materials; promoting economic, social and cultural development in Central Asia and facilitating the post-war construction in Afghanistan; jointly coping with such nonconventional security threats as drug-trafficking, weapons smuggling, illegal immigration, cross-border crimes, environmental pollution, water resource shortage, and emergency public health incidents. At present, all the above-mentioned parties are making collabora-

tive efforts at various levels, and the U.N., SCO, EEC, CIS, EU, OSCE, NATO, etc. are playing important coordinating roles in promoting cooperation in the region.

It is fairly normal to see competition in energy development. For example, as far as the alignment of the oil and gas pipelines from Central Asia is concerned, Russia naturally wishes to see its traditional influence maintained, with the pipeline going through the Russian territory; the U.S. and some European countries may expect the pipeline to bypass Russia and lead to the west through the Caucasus and Turkey; and China is certainly interested in seeing more pipelines going eastward. Even in the easterly direction, we notice there is competition between China and Japan; and the Central Asia states and Russia are also voicing different considerations regarding the destination and route of energy flows. However, whether energy consuming nations or exporting nations, all agree that there should be dialog and coordination in addition to competition. Recently, the five largest energy consumers in the world, i.e. the U.S., China, Japan, South Korea, and India, held an energy meeting at the ministerial level, which fully testifies to the desire for cooperation. Now that energy export countries have long formed their organization, voices have been heard recently in the international community calling for the establishment of an energy consumers' cartel. Perhaps this is also something worth considering.

It is critical that all participating parties must work together to find win-for-all solutions, so as to avoid the worst scenario of competition leading to conflict. For example, as far as the alignment of energy pipelines from Central Asia is concerned, only a multi-directional alignment will benefit all the parties. It is undesirable to strongly support one option with total disregard for others' interests, and also impossible in this era of globalization. So multilateral structures will prove indispensable for tackling such issues.

Take the Shanghai Cooperation Organization (SCO) for example. This multilateral organization has integrated, for the first time in history, the diverse interests of China, Russia, and the Central Asia states by minimizing the differences or undesirable consequences coming from competition, while maximizing and consolidating their common interests. The SCO has played a positive role, for instance, in opening the Kazakhstan-China pipeline to the Russians as well, although it appears to be a rival to the Russian pipeline. In this way, multilateral energy cooperation among China, Central Asia, and Russia is solidly promoted within the SCO framework. As early as May 2004, President Nazarbaev remarked during his visit to China that Kazakhstan invited Russia to export oil to China through the Kazakhstan-China pipeline.[8] It is pleasing to see his idea now being turned into reality. On the one hand, the oil resources for the pipeline come from the CNPC oilfields in western Kazakhstan, as well as from oilfields in southern Kazakhstan where Russian and Canadian oil companies operate; on the other hand, China, Kazakhstan, and Russia can also swap their oil production, i.e. the CNPC's production, being close to the Caspian sea, can be exported to Russia through the existing Kazakhstan-Russia pipeline, while Russia can export the same amount of production to China through the Kazakhstan-China pipeline. Such an arrangement can really be a good case of win-win for all. For this purpose, Kazakhstan and Russia have decided to improve the capacity of the Kazakhstan-Russia pipeline and connect it to the Kazakhstan-China pipeline. A Russian newspaper printed the following headline on this matter: "Russian oil is Flowing to China through the Kazakh Pipeline."[9] And the Kazakh energy minister points out, "This will be a real example of cooperation among Kazakhstan, China, and Russia, three SCO states."[10] At present, some countries, like Uzbekistan, are already showing a strong interest in exporting oil and gas to China through this Kazakhstan-China oil pipeline and the planned Uzbekistan-China gas pipeline. Russian observers believe that the Kazakhstan-China pipeline is the first step taken within the SCO to form an energy club involv-

[8] See: Xinhua News Agency, 18 May, 2004.
[9] *Vremia novostei,* 22 February, 2005.
[10] ITAR-TASS (Moscow), 17 November, 2005.

ing both producers and consumers.[11] There are now also deliberations about the possibility of transporting energy produced in Central Asia, the Caucasus, or even the Middle East to South Asian countries (like India and Pakistan) and East Asian countries (like Japan and South Korea), as well as China, via the Kazakhstan-China pipeline and others. Russians have said that the Kazakhstan-China gas pipeline to be constructed soon may also be extended to Uzbekistan and Turkmenistan, and may even later be connected to the Russian and Iranian gas grid, thus forming a massive network in Asia.[12] Such a scenario has already reared its head. The pipeline from Central Asia to East Asia can transport not only the oil and gas produced in Kazakhstan, but also that produced in Russia, Turkmenistan, Uzbekistan, Azerbaijan, and even Middle East countries like Iran. In this way, energy cooperation will be enhanced between Central Asia and East Asia, and even between the Middle East and the Asia-Pacific Region.

Although there are certain barriers as well as real competition, the prospects for energy security and energy development in Central Asia are still promising and optimistic. First of all, all the participating parties have recognized that regional security is a prerequisite for energy security and development and have common interest in guaranteeing security, stability, and prosperity in Central Asia. Secondly, as there are cross investments and cross holdings of shares in each other's business operations, there is an increasing overlapping of interests among the companies and states engaged in energy development in the region. As shareholders in the Central Asian energy market, all the participants will have to follow the general rules of the game and act in a mutually responsible manner if they are to reap benefits from the business here. This means that any short-sighted act that hurts others' interests is likely to boomerang, and only reciprocity will ensure the sustainable development and prosperity for all involved. Finally, although pipelines in different directions lead to different destinations and may seem competitive, they do after all join together in Central Asia, forming an energy supply network that considerably shortens the transportation distance among East Asia, the Middle East, Europe, Russia, and South Asia, or rather within the Eurasian continent. Viewed in this broad perspective, the new Silk Road of energy transportation will make Central Asia another energy hub of the world, next to the Middle East, and this fact will become a critical factor shaping the promising scenario of energy development in Central Asia.

## *Conclusion*

With China's rapid economic growth, particularly its accelerating demand for energy, Central Asian energy security is becoming more and more strategically significant for China. The Shanghai Cooperation Organization has enabled China to establish unprecedented security, political and economic relations with the region, which creates conditions for China playing an active and constructive role in energy development in Central Asia.

Despite the challenges to energy security and the obstacles to energy exploitation in Central Asia, all the shareholders are now determined to maintain stability and promote development in Central Asia, and are trying to strive for a win-win outcome for all amidst serious competition. In this context of both competition and cooperation, the rejuvenated ancient Silk Road will emerge as an energy supply hub and a golden energy corridor. We are confident in saying that energy security and energy development in Central Asia do have very bright prospects.

[11] ITAR-TASS (Astana), 6 February, 2005.
[12] Ibidem.