

# Perspectives of Sino-US Cooperation on Energy and Oil-Gas

Energy Bureau of China National  
Development and Reform Commission  
29 Jun. 2005      New Orleans

# Agenda

---

- I. Review of Sino-US global energy cooperation
- II. Enhanced Energy Cooperation Benefits Both China and the U.S.
- III. To develop worldwide energy cooperation between US and China

---

- **I . SINO—US ENERGY COOPERATION  
REVIEW**

# REVIEW & ASSESSMENT ON SINO— US ENERGY COOPERATION

---

- Since 1980s, US and China has begun world wide energy cooperation.
- Energy cooperation is one of the main contents of communications between both governments. Various formal agreements were signed in the fields.
- There are co-operations of different scale and abundant contents, including co-operations in US, in China and in a third country.
- Generally, the world wide energy cooperation between American and China's governments and enterprises are positive and fruitful.

# Energy cooperation is one of the main contents of SINO-US bilateral communications

- In 1997, China's Chairman Jiang Zemin and US President Clinton signed 'SINO-US PROPOSAL ON ENVIRONMENT AND ENERGY', which established the keynote of SINO-US energy cooperation.
- On 23rd May, 2005, Mr. Zhang Guobao, vice director of China's NDRC and Mr. Spencer Abraham Secretary of US Department of Energy signed understanding memorandum to enhance bilateral dialogue on energy policies.
- On 3rd May 2005, Mr. Zhang Xiaoqiang, vice director of China's NDRC and Mr. Baldman Secretary of US Department of energy made communications on Sino-US energy cooperation in Paris.
- Since 1998, US and China have sponsored forums on oil & natural Gas in turn. This is the sixth forum.
- In bilateral communications of the two countries, energy cooperation has become one of the main content. On 13th Apr 2005, energy issue was one of the main thesis in the first conference of 'SINO-US Global Affairs Forum' in Washington D.C

# Chinese Companies' Investment In US In Fields of Oil And Gas

---

- Sinochem Corporation began to research in American oil processing industry to choose investing locus and cooperating partner. In Oct 1988, Sinochem signed agreement to purchase 50% of PRC (Pacific Refining Company)'s stock shares and participate PRC's business and management.
- During the first two years, the joint venture gained on the back ground of sound oil market of American west coast.
- From 1991, the West Coast oil market was volatile, which made heavy negative effects on PRC's business. The refinery declared closing on 7th Jun 1995.

# American enterprises' cooperation in China

---

- From 1980s, American oil companies participated cooperation of exploring China's oil and NG on land and under ocean and signed 57 exploring projects.
- One of the representatives was the first phase of Bozhong 25-1 Oil field project in China's Bohai, which was co-explored by CNOOC and Chevron Texaco. This is the 3rd hundred-million-ton grade equipped oil fields which had potential reserves of 200 million barrels, a producing period of 20 years and the daily production was 16 thousand bbls.
- Chevron Texaco and China United Coal bed Methane signed China's first contract on Coal bed Methane cooperation. Since that, China United Coal bed Methane has signed 21 cooperation agreements with 10 foreign companies in US, Australia and so on, covering an area of 33.8 thousand sq. km. Up to May 2005, 127 Coal beds Methane wells had been drilled, with 121million dollars investment.

# SINO-US Energy Co-operations in third countries

---

- Oil companies of China and US also developed fruitful co-operations in other countries.
- One of the representatives is the 16 block fields in Ecuador. Sinochem Corporation and MURPHY SWITCH owned the field's shares and keep a fine relationship. Sinochem holds 14% while MURPHY SWITCH holds 20%.

# SINO-US Cooperation On Fossil Energy

- Since 1980s, US and China have developed positive cooperation in the fields of fossil energy.
- In 1985, consigned by China's former National Science and Technology Committee, the former Ministry of Coal Industry signed 'Protocol of Sino-US Fossil Energy Developing And Utilizing Cooperation' with US Department of Energy. In 1994, China's former National Science and Technology Committee and US Department of Energy signed 'Clean Coal Technology Cooperation Appendix' and began to co-research on Clean Coal Technologies such as IGCC.
- On 20th Apr 2000, Mr. Xu Guanhua, Vice secretary of China's Science And Technology Department signed the new round 'Protocol of Sino-US Fossil Energy Developing And Utilizing Cooperation' with representatives of US Department of Energy. A standing committee was set up for daily consulting. Another five accessories were signed such as 'Electric Power System' 'Clean Fuel' 'Oil and Natural Gas' 'Energy And Environment Technology' and 'Science of Climate'.
- In the Sino-US Technology Conference held in Washington D.C in Oct 2004, energy was considered as one of the key fields of Sino-US cooperation.
- In Apr 2005, 'Protocol of Sino-US Fossil Energy Developing And Utilizing Cooperation' was agreed to be prolonged by 5 years.

# Sino-US Cooperation on Clean Energy Tech for Olympics

---

- Mr. Xu Guanhua Secretary of China's Science And Technology Department, Mr. Fan Boyuan vice mayor of Beijing and Mr. Spencer Abraham Secretary of US Department of Energy signed in Beijing 'Cooperation Protocol for Clean Energy Tech for 2008 Beijing Olympics ', which set up the basic frame for clean energy tech cooperation for 2008 Beijing Olympics.
- Since 2002, US and China have confirmed 11 cooperation fields, including highly utilizing of NG, fuel battery, Olympic Village Energy Programming, intelligent traffic and so on.

---

- **II. Enhancing Energy Cooperation Benefits Both China and U.S.**

# Energy and Petroleum Consumption in China and U.S.

---

- China and the U.S. account for more than one third of the world total energy consumption. According to BP World Energy Statistics Review, The U.S. and China account for 22.8% and 13.6% of world total energy consumption respectively in 2004.
- China and the U.S. are the two biggest coal consuming countries. In 2004, China and the U.S. consumed 956 million and 564 million oil equivalent coal respectively, accounting for 34.4% and 20.3% of world total coal consumption.
- According to IEA Oil Market Reports on May 11, 2005, in the first quarter of 2005, the U.S. and China respectively consumed 20.61 million and 6.52 million barrels per day, ranked No.1 and No.2 in the world and accounting for 24.5% and 7.7% of world petroleum consumption respectively. In 2004, China attributed 40% of its total consumption to import, while the U.S. 64.76%.

# China's Energy Policies

- **Chinese government attaches importance on energy issues. Chinese Prime Minister WEN Jiabao said:” Must regard energy as the strategic emphases of economic development, provide steady, economic, clean, reliable and safe energy safeguard, and support the economic and social sustainable development by sustainable development and efficiently-using of energy.” Chinese energy policies include:**
- **First of all, stick to put energy saving on the first, carry out all-round and strict energy saving systems and measures, and improve energy using efficiency greatly.**
- **Secondly, regulate and optimize the energy structure, give priority to coal and make diversified and all-round development.**
- **Thirdly, base upon the exploration and exploitation of domestic energy.**
- **Fourthly, make full use of internal and external, two kinds of resources and two markets, and participate the energy cooperation and exploitation of the world.**
- **Fifthly, protect the environment, secure the safety and establish the petroleum deposit.**
- **To solve the energy issue fundamentally, we must establish firmly and carry out seriously the scientific development concept, pressingly change the ways of economic development, and take the new industrialization way firmly.**

# Both China and the U.S. need to enhance energy cooperation more deeply

---

- There is only one energy market in the world
- China has the largest population, with economic growing fastest; while the U.S. is the largest energy consuming country. Energy consumption in China and the U.S. will increase continuously in the future, with their proportions growing larger in the world energy consumption.
- The energy policies of China and the U.S. will decide the current and future world energy condition.
- The energy prospects of China and the U.S. in the 21st Century include solving some common obstacles. How to meet these challenges is a serious issue to both China and the U.S.

# Many opportunities and extensive prospects in Sino-U.S. energy cooperation

- On Dec. 16, 2004, during a meeting with U.S. former Energy Minister Spencer Abraham, Chinese Vice Prime Minister Zen Peiyan suggested that Sino-U.S. energy cooperation had extensive prospects and we need to actualize the function of Sino-U.S. energy talk system.
- On Dec. 17, 2004, during a speech in Tsinghua University in China, Minister Spencer Abraham said the U.S. and China should research how to control the energy curve of the next 50 years and seek measures to control the curve through cooperation and learn to improve energy efficiency and to create new technology.
- The Sino-U.S. energy cooperation may include:
  - The exploitation and use of coal, CO<sub>2</sub> emission decreasing technology, such as carbon seal up technology.
  - Using of hydrogen energy, both China and the U.S. joined the International hydrogen energy economic partner relationship.
  - Using of nuclear power and new nuclear reactor, both China and the U.S. are members of ITER Project.
  - New petroleum exploitation and recycle technology
  - Natural gas, including technology of coal bed methane exploitation and using
  - Application of new technology in energy field, such as nanometer technology's application in solar power, etc.
  - Energy saving and efficient using.

---

- **III. To Develop Worldwide Energy Cooperation between US and China**

# Crazy International Crude Oil Market



- Since the beginning of 21st Century, the international oil price has kept soaring.. Especially from second half of 2004, the price continually refreshed its peaks. On 16th.March of 2005, the product futures in NYNEX exceeded USD56/BBL, and on 4th .April of the same year, the price even broke the previous record and reached the level of USD58.28/BBL, which became the maximum point ever from the appearance of Crude Oil futures in NYMEX in March of 1983. On 15th March.2005, the OPEC Basket Price for Petroleum was in excess of USD50/BBL.
- On 27th June, WTI broke USD60/BBL.

# The Influence of Soaring Oil price on World Economy

- Referred to IEA 《The Analysis for the Impact of High Petroleum Price on Global Economy》 May.2004, the high oil price will make the global economy decrease about 0.5% in the first year, which is equal to USD 255 billion.
- To OECD member countries:
  - GDP of 2004 and 2005 went down 0.4%; the Consumption Price Index increased 0.5% and 0.6% respectively; unemployment Rate went up 0.1%; there will be more than 400 thousand people unemployed; the deficit of Regular Account were USD 32 billion and 42 billion respectively which will reach the highest level of USD 50 billion.
  - GDP of OECD countries will decline 0.3% in five years.
  - From 2001, the import fee for petroleum raised about 20%, and the fee of OECD in 2003 reached USD 260 billion.
  - The actual GDP of Non-OECD (including oil-export countries) will decrease 0.4% in the following year; GDP of Developing and Economy transiting countries will decline 1.5% and GDP of the African countries those are south to Sahara Dessert will go down 3%; the Economy Improvement will decline 0.2%.
- Commerce surplus of OPEC countries will increase about USD 120 billion.

# To stable Global Petroleum Market meets mutual benefits of China and US

---

- The world oil industry is always globalized since its appearing and the main origination and consumption countries in the world can not form a system by themselves outside the global petroleum market.
- Oil and gas are the commodities whose prices are calculated by a single currency. Crude oil and product oil is traded in the world scale; gas is supplied by pipelines to different zone markets and LNG is traded in the world scale as well.
- The fluctuation of oil price in the 21 century influenced on world and China and US economy, which fully demonstrated its importance and great impact as a global commodity.
- As two big oil producers and consumers in the world, China and US have the duties and obligations to keep the stability of global petroleum market.

# The Enterprises in China and US should Improve Mutual Understanding on Cooperation

---

- China--a developing country, its economy growth will only provide a wider market for world economy growth but will not bring any threat to anybody. US companies are welcomed to invest in China, and China is pleased to cooperate with US enterprises in any forms in the world.
- China's taking part in the exploration and development for oil and gas resources with the third country does not mean to rely on some countries and areas' resources, but to meet the domestic resources shortage instead. We hope US government's policy to some country should not influence China's exploration and development for oil and gas in those countries.

# The Wide Area for China-US Enterprises Cooperation

---

- **The development history of the global oil and gas industry is an epic for global cooperation of exploration and development and oil economy globalization is the epitome of world economy globalization. In the future, as the exploration and development of oil and gas resources become more and more difficult, investment risk become higher, the process of upstream and down dream integration become quicker, international cooperation is one of the highways to achieve the future development goal.**
- **In order to make new contributions to development of world oil and gas industry, China and US's oil and gas enterprises should make more efforts on cooperation in the world scale, which base on the broad mutual understanding so as to combine the development for oil and gas resources and market development plans.**
- **The cooperation method is various. Traditional cooperation can be applied, cooperated and joint ventures can be used and cooperated investing trade can be feasible as well. We can do resources exploration, oil and gas manufacture and use, integrate upstream and downstream. We can also make industry cooperation, technology communication and various cooperation on finance, information, software development and technology innovation.**

# Proposal 1: To establish communication channel of oil information

---

- As the two largest petroleum consumers, the Sino-America energy policy and the publicity and transparency of consumption information will affect the world oil market greatly.
- The market panic can be avoided effectively by establishing healthy and canonical communication channel of oil information.
- Three proposals were made to set up Sino-America energy policy and information exchange mechanism.
- Policy: the existing official communication emphasize particularly on expatiating and interpreting the current and intending energy policy.
- Information: the point is both the energy ministries of America and China can exchange the oil production and consumption data timely to probe into the oil production and developing trend.
- Technology: The energy ministries and research institutions shall cooperate in research of market forecast technique for the governments to make right decision on the policy.

# Proposal 2: technique cooperation and communication

---

- After one century's development, Chinese oil industry has form its own technique system especially the Sedimentary basin exploration and production system.
- Chinese oil enterprises have established the system including exploration, refining, petroleum production and marketing channel.
- American enterprises also own the advanced technique such as digital and completion technique.
- We expect the cooperation of Sino-America begins from the technique cooperation and communication to push the all-around and further cooperation and communication.
- Technique cooperation and communication can be for research purpose as well as production.



**Thank you.**