US-China Relationship: Economics and Security in Perspective

Statement by

David L. Pumphrey
Deputy Assistant Secretary
Office of Policy and International Affairs
United States Department of Energy

Before

The US-China Economic and Security Review Commission

February 1, 2007

Madame Chairwoman, Mr. Vice Chairman and members of the Commission, I am pleased to appear before you today to discuss the Administration's perspectives on the progress in our energy relationship with China and the challenges ahead for 2007.

We have actively engaged China on a wide range of energy issues in a variety of different forums since your last hearing on August 4, 2006. In this short period of time we have managed to accomplish some meaningful results. We are especially encouraged that our cooperative efforts to promote clean energy, foster improved efficiency of energy use and to enhance energy security have achieved some successes in the past few months. Nevertheless, there is much more work to do as China's growing appetite for energy will continue to effect world energy balances and the environment.

We intend to maintain our strategy of engaging China in a positive way and to encourage it to embrace market principles and to put this approach into practice. At the same time, we have also intensified our dialogues with China's economic and energy leadership regarding the responsibilities it has to the global community as a significant player in world energy markets.

CHINA'S ENERGY OUTLOOK

China was the world's second largest energy consumer after the United States in 2004 consuming 60 quadrillion Btu's and accounting for over 13 percent of world marketed energy consumption. Energy Information Administration (EIA) projects that China's marketed energy consumption will grow at a rate of 4.2 percent between 2003 and 2030 driven by an economic growth rate of 6 percent and accompanying industrial and demographic changes. As a result, China is projected to surpass the United States and become the world's largest energy consumer by 2030, with an energy demand of 139 quadrillion Btu, or over 19 percent of the world total.

At present, China is the world's largest producer and consumer of coal, and in 2004 it accounted for one-third of world consumption, equivalent to almost 2.1 billion short tons. Coal is China's predominant fuel, accounting for 69 percent of the country's marketed energy consumption in 2004. Given its abundance and price competitiveness, coal will remain for sometime the fuel of choice for China. China's coal consumption is projected by EIA to increase at an average rate of 4.2 percent between 2003 and 2030 reaching over 4.6 billion short tons by the end of the period, when it will still account for 64 percent of the country's marketed energy consumption. The electric power sector is expected to account for over half of the increase in coal consumption over this period, with the industrial sector accounting for most of the rest. China is currently a net exporter of coal but is expected to become a net importer by 2030, potentially importing 22 million short tons more that it exports.

China's oil consumption has been growing rapidly. In 2004, China passed Japan to become the world's second largest oil consumer, using 6.4 million barrels per day, or about 8 percent of world oil demand. According to EIA, China's oil consumption is estimated to have grown from 6.9 million barrels per day in 2005 to 7.4 million barrels per day in 2006. Oil accounts for a little more than 20 percent of the China's marketed energy consumption. Both the EIA and the International Energy Agency (IEA) project that China's oil consumption will increase to approximately 15 million barrels per day in 2030, or about 13 percent of world oil demand.

China became a net importer of petroleum in 1993 and its petroleum imports are projected by EIA to reach 10.9 million barrels per day in 2030. According to British Petroleum's 2006 *Statistical Review of World Energy*, China imported approximately 3.4 million bbl/d of crude oil and petroleum products in 2005. Currently, the industrial sector constitutes about 70 percent of China's oil demand, though future strong growth is expected in the transportation sector.

In 2004, China was the second largest generator of hydroelectric power in the world close behind Canada. Hydroelectricity and other renewable energy accounted for about 6 percent of China's marketed energy consumption in 2004. That share is projected to grow to 8 percent in 2010, according to EIA, as large hydroelectric projects are completed, but then gradually fall back to 6 percent by 2030.

Historically, natural gas has not been a major fuel in China. However, given the reduced environmental impact of using natural gas compared with coal, China is expected to substantially increase its use of this resource. In 2004, consumption was less than 1.4 trillion cubic feet and accounted for less than 3 percent of China's marketed energy consumption. According to EIA projections, natural gas consumption will increase by an average of 6.8 percent per year between 2003 and 2030, reaching 7 trillion cubic feet or 6 percent of marketed energy consumption. Because China has limited natural gas reserves, it is projected to rely on imports to meet more than 40 percent of natural gas demand in 2030.

China is also planning to increase significantly its installed nuclear generating capacity. Installed capacity, which was 6 gigawatts at the beginning of 2004, is projected by EIA to reach 39 gigawatts in 2030. As a result, the share of nuclear energy in China's marketed energy consumption would rise from less than one percent in 2004 to 2.2 percent in 2030.

Because China relies so heavily on coal and petroleum to meets its energy needs, in 2004 it ranked second in the world behind the United States for emissions of carbon dioxide. China's emissions were 4.7 billion metric tons of carbon dioxide, which accounted for over 17 percent of the world total. According to EIA, China's carbon dioxide emissions from fossil fuel use are projected to increase at a 4.2 percent average rate between 2003 and 2030, exceeding those for the United States by 2015, and reaching 10.7 billion metric tons or almost 25 percent of the world total by 2030. Thus, China's growing energy consumption will effect not only the global energy balance, but also the environment.

CHINA'S ENERGY POLICIES

China is actively pursuing comprehensive energy strategies and policies in the areas of coal, oil and gas, electric power, nuclear energy and renewable energy resources through its 11th Five-Year Plan (2006-2010).

The most striking aspect of the 11th Five-Year Plan is a mandatory target calling for a 20 percent reduction of energy consumption per GDP unit by 2010. This target is one of only two mandatory targets in the plan. To reach this goal, China's 11th Five-Year Plan gives energy-saving and efficiency improvements a high priority. China's stated economic goal is to quadruple GDP by 2020 while only doubling its energy use.

According to the National Development and Reform Commission (NDRC), the level of energy efficiency in China is about 10 percentage points below that of more advanced countries. This means that in the various phases of energy utilization (processing, storage, transport and transmission, etc.) there are significant losses and inefficiencies of energy use. Further, energy consumption per $1 million of GDP (calculated using the 2005 exchange rate) is approximately 2.4 times more than the world average, while energy consumption per unit of product of eight major industries (electric power, iron & steel, nonferrous metal, petrochemical, building material, chemical light industry and textile industries) was on average 40 percent higher than the most advanced world level. In addition, energy consumption for space heating per building area in China is 2-3 times as much as in developed countries with similar climatic conditions. The gap in energy utilization between China and other countries indicates the existence of a huge energy savings potential and a potential reduction in overall energy demand.

In recent years, China has introduced various approaches to conserve energy, including:

Building Efficiency: The Ministry of Construction is looking to re-build government office buildings in coming years. Initially, the Ministry plans to reconstruct ten central government ministry buildings, including that of the Ministry of Construction, to make them more energy efficient. If the initial reconstruction is successful, they hope to re-build all central government ministry and provincial government buildings. Also, the Chinese government is calling for energy consumption by new urban buildings to be reduced by 50 percent by 2010. More specifically, the plan calls for a 65 percent reduction in big cities like Beijing; 15 percent reduction in mid-sized cities; and 10 percent in small cities.

Transportation Efficiency: The Chinese government began to encourage car ownership in the mid-1990s to spur the development of the automobile industry. In 2004 there were about 27 million cars in the country, which is projected to increase to reach 200 to 387 million by 2030 (IMF World Economic Outlook). To restrain road transport oil consumption, the Chinese government introduced its first fuel-efficiency standards for passenger cars in July 2005, with a second, more stringent stage to go into effect in 2008. These standards are slightly stricter than those in effect in the US and should reduce oil demand growth if enforced. In April 2006, China raised taxes on large cars as part of efforts to lessen the country's dependency on imported oil and to promote energy efficiency in the transportation sector. The measure, however, is unlikely to have a huge impact on the market or the environment, given that large cars make up only a small proportion of the total market and their buyers tend not to be price-conscious.

Some of the most concrete energy-related goals under the 11th Five-Year Plan pertain to coal, as an emphasis is given to constructing large-scale coal mines and upgrading small- and medium-scale coal mines. There is also strong interest in coal-bed methane and co-generation. Under the 11th Five-Year Plan, the total supply capacity of coal is planned to reach 2.43 billion tones per year. Coal-bed methane production capacity is targeted to reach 5 billion cubic meters by 2010 under the 11th Five-Year Plan.

With respect to power generation, the Chinese are looking to the installation of large-size, high-efficiency thermal generators; the development of hydropower, and the further development of nuclear power.

The 11th Five-Year Plan calls for the accelerated research and utilization of renewable energy. In 2003, the use of renewable energy accounted for 3 percent of primary energy consumption in China. China's first Renewable Energy Law calls for renewables to account for more than 5 percent of overall national energy consumption by 2010, and 10 percent by 2020. The Law, which was drafted with assistance from DOE's National Renewable Energy Laboratory, went into effect in January 2006. According to the 11th Five-Year Plan, China plans to produce about 4 million metric tons of ethanol (1334 million US gallons with conversion factor 1 MT = 7.94 barrels) by 2010, and 12 million tons of biofuels (3599 million US gallons with conversion factor 1 MT = 7.14 barrels)—including ethanol and biodiesel—annually by 2020, pushing the share of biofuels to 15 percent of the nation's transportation fuel use. Reportedly, the Ministry of Finance has set up a fund to promote the development of alternative energy, by providing subsidies and loans to some key alternative energy sectors, such as ethanol, bio-diesel, solar power, geothermal energy, and wind power.

In addition to domestic efforts towards the development of alternative energy sources, the Plan calls for a diversified oil supply strategy including a "going out strategy." The strategy involves increased investment by China's state-owned energy companies in oil and gas production overseas.

US ENGAGEMENT WITH CHINA IN ENERGY

DOE engages China in energy policy, energy security, fossil energy, energy efficiency, renewable energy, and nuclear energy and nonproliferation. The primary mechanisms include the US-China Energy Policy Dialogue (EPD), technical cooperation under the auspices of the US-China Science and Technology Agreement, the US-China Peaceful Use of Nuclear Technologies Agreement (PUNT), the Oil and Gas Industry Forum and the recently established Strategic Economic Dialogue (SED). Since the Commission held its hearings in August 2006, there has been activity in all five mechanisms.

For example, the EPD involving the DOE and the NDRC emphasizes that the United States and China share many common challenges and opportunities as the two largest energy consumers in the world and aims to promote greater cooperation to address there issues. Last September, the second Energy Policy Dialogue was held in Hangzhou, China. The US delegation was led by DOE Assistant Secretary for Policy and International Affairs Karen A. Harbert. The Chinese delegation was led by NDRC Vice Chairmen Chen Deming, who has responsibility for energy policy. The two sides exchanged information and views on one another's energy policies, including the President's Advanced Energy Initiatives and Global Nuclear Energy Partnership (GNEP), energy-related goals under China's 11th Five-Year Plan, and China's strategic petroleum reserve plan. One of our key messages in these policy discussions has been the importance of relying on market forces to determine energy product prices and appropriate supply distribution. We have emphasized that China should also rely on the operation of the market to meet their energy import needs, rather than following a policy that emphasizes securing energy supplies through equity purchases. Lastly, the two delegations also engaged in in-depth discussions on energy efficiency and renewable energy, including biofuels.

Meanwhile, various protocols under the umbrella of the US-China Science and Technology Agreement have been employed to promote technical cooperation in the fields of fossil energy, renewable energy and energy efficiency, which are described later

The energy and economic engagement between the United States and China was brought to a new level in September 2006 with the establishment of the US-China Strategic Economic Dialogue (SED) during Treasury Secretary Paulson's visit to China. The first meeting of the SED was held in Beijing, China, on December 14-15, 2006 and energy and the environment were key themes. For example, Secretary of Energy Samuel Bodman co-chaired a session on "Energy and Environment" with EPA Administrator Stephen Johnson. The panel addressed various aspects of the linkage between the use of energy and natural resources, their impact on the environment, and sustainable economic development. Their discussions illuminated these issues to the wider audience within the Chinese leadership, beyond energy and environmental policymakers. Key outcomes from the December SED, in some cases based on the earlier work of the EPD, include the renewal of the Protocol on Energy Efficiency and Renewable Energy; and China's agreement to join the FutureGen Government Steering Committee. Energy and environment issues will remain key topics of discussion during the next SED meeting in May in Washington, D.C.

Another initiative is the Asia-Pacific Partnership (APP) for Clean Development and Climate which is an effort to accelerate the development and deployment of clean energy technologies. Founding partners Australia, China, India, Japan, Republic of Korea, and the United States have agreed to work together and with private sector partners to meet goals for energy security, national air pollution reduction, and climate change in ways that promote sustainable economic growth and poverty reduction. The Partnership will focus on expanding investment and trade in cleaner energy technologies, goods and services in key market sectors. The Partners have approved eight public-private sector task forces: Aluminum, Buildings and Appliances, Cement, Cleaner Use of Fossil Energy, Coal Mining, Power Generation and Transmission, Renewable Energy and Distributed Generation, and Steel. China has been actively engaged in the task forces and hosted two task force meetings last year (Power Generation and Transmission in Beijing and Cement in Xian).

I would like to discuss in more detail some of our activities with China. The accomplishments of our bilateral engagement can be categorized into several areas as follows:

Fossil Energy

With fossil fuels accounting for over 90 percent of Chinese energy consumption, the US has assigned a high priority to maintaining long term technical cooperation with China on fossil energy issues ranging from clean coal technology to oil and gas. This technical cooperation is in the areas of government-to-government cooperation via clean coal technology projects including FutureGen, the US-China Oil and Gas Industry Forum (OGIF) and the Fossil Energy Protocol.

The FutureGen Initiative is a $1 billion multilateral initiative to build a near-zero atmospheric emissions coal-fired power plant. Announced by President Bush in 2003, the FutureGen concept includes involving foreign governments and companies in this effort to demonstrate technologies

that could reduce carbon emissions worldwide. When operational, the FutureGen plant will be the cleanest fossil-fired power plant in the world. The Republic of India and the Republic of South Korea were the first governments to sign a "framework protocol" to express their commitments to join this Initiative. Meanwhile, the China Huaneng Group, China's largest coal-fueled power generator, is already part of the FutureGen Industry Alliance, which is a consortium of some of the largest coal producers and users in the world who partner with DOE on the FutureGen project. Following the Chinese government's formal expression of its willingness to join the FutureGen Government Steering Commission in December, a DOE delegation will travel to China in February to begin negotiating the terms of participation with the Chinese government.

The US-China Oil and Gas Industry Forum (OGIF) is a public-private partnership involving government and industry representation from the US and China. The purpose of the OGIF is to advance common goals, including the development of secure, reliable and economic sources of oil and natural gas while facilitating investment in the energy sector. DOE and the Department of Commerce lead US participation in the OGIF while China's participation is coordinated by the NDRC. The seventh meeting of the OGIF was held September 11-12, 2006 in Hangzhou, China.

The Protocol for Cooperation in the Field of Fossil Energy Technology Development and Utilization was established between DOE and the Ministry of Science and Technology (MOST) of the People's Republic of China for the purpose of maintaining long-term technical cooperation. Under this protocol, five annexes have been established: Annex I for Power Systems; Annex II for Clean Fuels; Annex II for Oil and Gas; Annex IV for Energy and Environment Technologies; and Annex V for Climate Science. Each annex seeks to develop and implement cooperative tasks involving industrial, academic and governmental organizations from both countries. Key accomplishments include: 1) training of 175 Chinese utility personnel in US technologies and practices for flue gas desulphurization (FGD) for coal-fired power plants (the Chinese FGD market is estimated at $13 billion over the next 6 years; 2) two workshops on US technology to control sulfur dioxide (SO_2) and nitrogen oxides (NOx) emissions from coal-fired power plants. Over 250 Chinese power plant and environmental officials attended these workshops to meet with nearly 20 US companies; and 3) study of the use of ammonia as a reagent for the capture of CO_2 from power plant gas streams.

The US is cooperating with China in clean coal technology, building on the experience in the US Clean Coal Technology Program. Several clean coal projects are being carried out through the Energy and Environment Center in Beijing, a cooperative program between the US and China operated through Tulane and Tsinghua Universities. These projects focus on reducing emissions from utility and industrial boilers, as well as facilitating the entry of American equipment and expertise into the Chinese market for coal preparation machinery.

Energy Efficiency and Renewable Energy

Another outcome under the SED was the renewal of the Energy Efficiency and Renewable Energy Agreement with a focus on industrial energy efficiency, green buildings, and biofuel joint research. This has provided a renewed framework for future growing cooperation in this

field. China's heavy reliance on coal (70 percent) contributes to severe environmental problems and makes China the world's second largest greenhouse gas emitter (after the US) and largest emitter of SO_2. China's market presents potentially promising opportunities for US energy equipment, technologies and services.

Some of our cooperation and assistance activities include:

In March 2005, the National People's Congress Standing Committee passed legislation calling for the government to adopt an array of policies that encourage the development and use of wind, solar, geothermal and small-scale hydroelectric plants. Staff at DOE/Lawrence Berkeley National Laboratory (LBL) and DOE/National Renewable Energy Laboratory (NREL) helped to draft this so-called "Green Power Law." Additionally, in 1998 with assistance from LBL, China passed its first "Energy Conservation Law."

In another area, DOE's seed money for a Geothermal Heat Pump (GHP) Feasibility Study has resulted in exporting more than $11 million worth of US-made equipment to China. Now, the development and use of GHPs for buildings have been listed as one of the strategies for China's 11th Five-Year Plan.

DOE and China's Ministry of Science and Technology (MOST) cooperated on the development of the Energy Efficient Demonstration Building (also called the "Agenda 21 Building"), which was the result of a five-year collaboration to design and construct an energy-efficient office building and to showcase advanced US building technologies in Beijing. In 2005, it won an award as the most energy-efficient and environmentally-friendly building in China. In 2006, it was certified as a Leadership in Energy and Environmental Design (LEED) Gold building by the US Green Building Council. According to the building owner, the building uses 40 percent less energy than similarly-equipped office buildings in Beijing.

The Chinese industrial sector is particularly important since it consumes nearly two-thirds of the commercial energy and is highly dependent on coal. China is also undergoing a critical phase of technology implementation and much of the industrial production capacity that will exist in China fifteen years from now has yet to be built. Therefore, technologies chosen today will affect the patterns and the efficiency of energy use for decades to come. Under the Asia Pacific Partnership, DOE proposes to work with the Chinese to implement an industrial efficiency audit program and extend our work on green buildings. We are also working with the organizers and developers of the 2008 Summer Olympic Games in Beijing to showcase clean energy technologies, such as green building technologies, in facilities that are being constructed for the event. DOE, through technical assistance, consultation, education and training, hopes to help China achieve its goal of receiving a high LEED-Neighborhood Design rating for the Olympic Village.

In the area of industrial efficiency as discussed at the September 2006 EPD - and also under auspices of the Asia Pacific Partnership - DOE proposes to work with China's NDRC, provincial governments, and Non-Governmental Organizations (NGOs) such as Chinese Enterprise Confederation, to initiate the Train-the-Trainer program, for which DOE would provide technical training and software.

On the development of renewable energy resources, in conjunction with the Asia Pacific Partnership, DOE proposes to work with the Chinese on a renewable energy resource assessment, technology road-map, and joint research on cellulosic ethanol production technology. This will build on the work of DOE and China's Ministry of Agriculture in the late 1990s, which developed the very first Chinese biomass resource assessment and database.

Nuclear Energy

China has an ambitious plan to expand the role of nuclear power, which represents significant commercial opportunities for example; Westinghouse is closing in on a commercial contract to build to build four AP1000 nuclear reactors in China worth $5.3 billion. The AP1000 Westinghouse design adopts passive safety features and simplified design for enhanced safety and cost effective construction. This multi-billion dollar deal, when sealed, is expected to bring significant economic benefits to the United States. It will create some 5,500 new jobs in the US and since it could lead to the construction of many more nuclear reactors in China, the long term economic benefit for the United States could last for the next 15 to 20 years. This transaction will also improve the trade balance between the US and China.

During Secretary Bodman's December 2006 visit to Beijing, he and Chairman Ma of the National Development and Reform Commission signed the "Memorandum of Understanding Concerning Cooperation in the Area of Advanced Pressurized Water Reactor Nuclear Power Projects in China and Related Technology Transfer." The MOU restates that the United States Government has authorized the export to China of the AP1000 technology, and that the United States Government is prepared to take appropriate steps, subject to United States laws and regulations, to facilitate nuclear energy plant exports from the United States to the People's Republic of China, consistent with the 1985 Agreement for Cooperation Concerning Peaceful Uses of Nuclear Energy between our two governments (1985 Agreement for Peaceful Nuclear Cooperation), for the four proposed AP1000 reactors if China decided to purchase the Westinghouse technology. The MOU reiterated the support of the US Government for these exports of civilian nuclear technology to China for these reactors.

This deal regarding these four AP1000 reactors, once finalized, would affirm that the US is resuming its world leadership in the design and construction of civilian nuclear power plants, and also permit the Chinese to develop their domestic nuclear power industry in the years ahead. Additionally, the award of these contracts for US technology by China symbolizes that our energy security is increasingly linked to that of China's and that our two economies are more interdependent than ever.

DOE has been actively pursuing bilateral nuclear nonproliferation cooperation with China while supporting the US nuclear energy industry. The Agreement on Cooperation Concerning Peaceful Uses of Nuclear Technology (PUNT) was signed in 1998 by DOE and the State Development Planning Commission of China (now the National Development and Reform Commission). The objective of the PUNT Agreement, which is subject to the 1985 Agreement for Peaceful Nuclear Cooperation, is long-term cooperation in the peaceful use of nuclear technologies, including in the area of light-water nuclear power reactor technologies.

An additional objective of the PUNT agreement is to advance a non-proliferation agenda with China that includes control of exports of nuclear materials, equipment and technologies; nuclear material control and accounting; physical protection of nuclear materials and nuclear facilities; nuclear reactor power plant safety, and nuclear safeguards technology development.

Since 2002, the United States and China have had three Joint Coordinating Committee (JCC) meetings. The meetings have increased Sino-US nuclear energy cooperation and understanding on nuclear nonproliferation assurances that are required for nuclear technology transfers between countries, created a climate for breakthroughs in nuclear export controls, and led to two bilateral workshops on the issue in 2004.

Energy Security and Strategic Oil Stockpiles

DOE has been encouraging China's establishment of a strategic oil stockpile for a long time, before China's decision to establish a SPR under the 10th Five-Year Plan (2001-2005). In June 2001, DOE hosted a team from China who visited Washington and the Strategic Petroleum Reserve (SPR) in Bayou Choctaw, Louisiana to obtain information from DOE on the development of its own strategic oil stockpile. We also encouraged China's participation in the Asia Pacific Economic Cooperation (APEC) sponsored SPR workshop in Hawaii and hosted briefings for Chinese officials in Washington in 2005.

After a decade of consideration, China identified four sites in 2004 for the oil storage tanks: Zhenhai, Dalian, Zhoushan and Huangdao. The Chinese government is building its strategic reserves in three phases, to be completed by 2020. The first phase, to be completed by 2008, will hold 70 million barrels. The second and the third phases will each add 160 million barrels by 2020. The high oil prices of recent years prompted China to delay oil purchases to fill its strategic reserve. However, China reportedly imported about 12 million barrels, or about 400,000 bpd, in December, to put into the main government-controlled reserve at Zhenhai. During the September 2006 Energy Policy Dialogue, the US delegation particularly stressed the importance of using strategic reserves only during severe supply disruptions not as a market management tool. Recent comments by Chinese officials have indicated that they have adopted this policy. We have also stressed the value of international coordination on the SPR draw-down, and urged China to consider coordinating with the International Energy Agency on the use of strategic petroleum reserves when their SPR is complete. The US delegation also encouraged China's greater engagement with the IEA even though China is not a member. To seize on the frank exchange on SPR related policy and technical discussions in China, DOE had proactively ensured China's substantive participation in its International Petroleum Stockpiling Symposium, which was just held in New Orleans on January 28-31, 2007. Through technical as well as policy discussions, we strive to re-enforce the value of international coordination on draw-down decisions. The Symposium was attended by several officials from China's central energy policymaking and financial institutions as well as state-owned oil and gas companies that are the operators of China's SPR**.**

INTEGRATING CHINA INTO WORLD ENERGY MARKETS

China's transition from being a net oil exporter to net oil importer marked a turning point in its role in international energy trade. While China remains a significant energy producer, notably coal, its increasing reliance upon external sources to fuel its growing economy gives it a newly vested interest in market stability and security in terms of both price and supply.

We have been proactive in engaging China in a variety of multilateral foray to supplement our bilateral interactions previously described as part of an effort to encourage China to adopt energy policies and strategies that adhere to international norms in order to become a responsible stakeholder in the international system.

For instance, we have welcomed China's participation in technical forums such as the Carbon Sequestration Leadership Forum (CSLF), the International Partnership for a Hydrogen Economy (IPHE) and the International Thermonuclear Experimental Reactor (ITER) as well as the GEN-IV group for the next generation of nuclear power plants. We have also partnered with China and others in the Asia Pacific Partnership, described earlier.

For some time we have worked to bring China into closer association with the International Energy Agency. This effort to include China in selected IEA programs and activities is part of a broader campaign by the IEA to encourage emerging economies, such as China and India, to participate in IEA activities as observers. In October 2006, for example, China hosted the "China-IEA Joint Workshop on Oil Security." In December 2006, senior Chinese officials traveled to Sydney, Australia, for a special seminar on the margins of the IEA Governing Board meeting on China and India's energy supply and demand outlook, impact on energy markets, energy investment needs and prospects for energy sustainability. They also attended a portion of the Governing Board meeting itself. These efforts by the US and the IEA are ongoing, especially in the area of coordinating oil stock drawdown policies in the event of a physical disruption of oil supplies.

China is also active in the Asia Pacific Economic Cooperation's (APEC) Energy Working Group. For the 6th APEC Energy Ministerial Meeting, in Manila, in June 2004, the Chinese delegation tabled a paper to enhance energy security objectives under the Action Plan, which was proposed by the Bush Administration. Our continued engagement with China through APEC has furthered the Administration's efforts to urge China to become a responsible stakeholder and to recognize the international impact of its domestic policy decisions. For example, China agreed to the APEC Best Practice Principles for Strategic Oil Stocks, which discourages the use of reserves for price management purposes, absent an oil supply emergency.

Secretary Samuel Bodman also participated in the December 2006 Five-Country Energy Ministers' Meeting in Beijing. The Five-Country Meeting was a Chinese initiative to exchange views on regional energy security issues with the Energy Ministers from the US, China, India, Japan and South Korea. This meeting was significant as it indicates China's growing recognition of the important role it plays in world energy markets and demonstrates its willingness to reach out to others in a dialogue rather than to act unilaterally. The Chinese statement at the Five-Country Energy Ministers' Meeting was particularly welcoming, including their endorsement of

the Joint Statement language which included a commitment to follow market principles and the recognition of the benefits of the coordinated use of strategic oil stocks.

Conclusion

As the two largest energy consumers in the world, the United States and China have a common interest in working together both bilaterally and multilaterally to promote global energy security and a cleaner energy future.

Madame Chairwoman, Mr. Vice Chairman, we plan to continue engaging China in a way that emphasizes a collaborative approach to our shared energy challenges and that encourages China become an ally in the world energy system. This is a process that we take one step at a time and based upon the progress we have achieved thus far, I believe there are even greater benefits down this road for both nations in terms of energy security and a clean energy future.

Thank you and I will be happy to take your questions.