COMMITTEE ON GOVERNMENT REFORM

SUBCOMMITTEE ON NATIONAL SECURITY, EMERGING THREATS AND INTERNATIONAL RELATIONS
CHRISTOPHER SHAYS, CHAIRMAN
SUBCOMMITTEE ON ENERGY AND RESOURCES
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Joint Oversight Hearing:
"Energy as a Weapon: Implications for US Policy"
May 16, 2006, 2:00 p.m.
Room 2154 Rayburn Building

BRIEFING MEMORANDUM

No legitimate interest is served when oil and gas become tools of intimidation or blackmail, either by supply manipulation or attempts to monopolize transportation.[1]

--- *Vice President Richard B. Cheney*

SUMMARY:

Tight global market conditions have led to record-high petroleum prices. The current situation is largely demand-driven due to economic growth and increased demand from Asia and the US. There is little or no spare production capacity in the world market, and any event perceived to have an impact on the market causes extreme concern and high volatility in prices. As a result, the US is more vulnerable to a catastrophic supply shock than at any time in recent memory, especially considering the current geopolitical environment.

A noted expert has postulated that "a slow-motion supply shock" may already be taking place in the world system. About 2.2 million barrels per day (mbd) is currently out of production due to a variety of factors in different producing countries. While small in terms of the 85 mbd world oil market, it is especially significant because of the tight global supply and demand balance.[2]

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[1] Remarks at the 2006 Vilnius Conference; Vilnius, Lithuania; May 4, 2006.

[2] David Wessel, "Oil Shock in Slow Motion," *Wall Street Journal*, 5/11/06. Dr. Daniel Yergin, Chairman of Cambridge Energy Research Associates, made the observation.

In addition, many countries are dependent on natural gas for critical industries, home heating, and electricity generation. Natural gas dependence and its increasing cost are important to the US, of grave concern to Europe, and are a source of sudden consternation in South America. Unlike the world market for crude oil, natural gas markets are fragmented according to pipeline connectivity, and a truly global Liquefied Natural Gas spot market remains years away. Like the global petroleum market, regional natural gas markets are vulnerable to political machinations.

There have been a number of disturbing trends shaping a new pattern of energy geopolitics. Chief among them is the use of energy as a "weapon" by producing countries such as Russia and Iran—whether as a threat or an actual cut-off in supplies to consuming countries. Next, the expropriation of energy assets or forced renegotiation of existing concessions in South America is likely to have wide-ranging impacts. Finally, the pursuit of "mercantilist" strategies to secure energy through long-term, state-to-state agreements (e.g. China) distorts markets and investment, and helps to create an atmosphere of antagonistic international competition for energy.

This hearing will assess the implications of these developments and the challenges they present to the United States. Bearing these challenges in mind, this hearing will also examine how US policies aim to protect vital national interests and the security of the US economy. In addition, the effects of using "energy as a weapon" on world and domestic markets will be discussed.

BACKGROUND:

US Vulnerability and International Energy Markets

The US is more vulnerable to energy supply shocks as petroleum and natural gas markets get increasingly tight…

The US is more vulnerable to energy supply shocks than at any time in recent memory. US oil demand is steadily growing while domestic supplies are dwindling, forcing the US to rely on imports for almost 60 percent of our consumption. Fifty years ago the US produced half of the world's oil, and today the US does not produce even half of its own needs. Domestic crude oil production continues to decrease, from a projected 5.5 mbd in 2006 to 4.57 mbd in 2030.[3] The US Energy Information Administration (EIA) forecasts dependence on petroleum imports will increase to 68 percent by 2025.[4] By 2030, forecasts indicate the transportation sector will comprise 74 percent of US petroleum consumption.[5]

Internationally, the crude oil and petroleum refining markets are each balanced on a razor's edge. The situation is largely demand-driven due to growth in Asia and the US. China is now the second largest consumer of oil behind the US, and China is the source of 40 percent of world oil

[3] Energy Information Administration, *Annual Energy Outlook 2006*, Reference Table 11.

[4] Energy Information Administration, *Annual Energy Outlook 2006*, p. 101. According to EIA, the top sources of petroleum imports (comprising 75 percent) to the US for February 2006 were, in descending order, Mexico, Canada, Saudi Arabia, Nigeria, and Venezuela.

[5] Energy Information Administration, *Annual Energy Outlook 2006*, p. 95.

demand growth over the last four years. Record high prices have been the result of economic growth and increases in demand for oil and refined petroleum products. There is a lack of surplus production capacity in the markets for crude oil and refined products to provide a "buffer" against price volatility and instability in the markets.

Furthermore, the refining market is extremely complex due to different and stringent environmental standards for fuels in the US and Europe. Imports comprise approximately 10 percent of gasoline consumed in the US, but many foreign refineries are not equipped to produce US blends of gasoline or blendstock. In the US alone, the Government Accountability Office identified twelve distinct gasoline blends used in the US in the summer of 2004.[6]

Excess capacity has been wrung out of the world oil system since the 1980s. Record profits in the late 1970s and early 1980s led to vast overexpansion in the global oil industry. In 1986 there was 100 percent spare capacity in the industry.[7] Globally, return on investment for the oil industry was often below the cost of capital for much of that period, discouraging investment for a long period. Another boom in investment is occurring on a global scale. However, it is unclear whether or when enough surplus capacity will come online to provide an adequate cushion against spikes in demand or if supply is abruptly interrupted. As a result of extremely tight markets, news of any potential disruption in the production or distribution of petroleum products has an immediate—and often disproportionate—effect on prices.

Unlike markets for crude oil, which is globally traded commodity, natural gas markets are fragmented according to the limited number of Liquefied Natural Gas (LNG) terminals or pipeline connectivity. Although progress is being made in terms of the investment boom catching up to demand, there is not yet a truly global spot market for LNG—which is transported by specialized tanker ships—although more consuming countries are seeking to build regasification terminals to receive LNG. In 2004 almost 12 percent of a nearly 20 billion cubic feet per day global LNG market was sold on a spot basis; the rest of the market is dominated by long-term contracts.[8] As a result, many countries are dependent on a limited number of producing countries that are critical suppliers via pipeline to consuming regions. Russia is particularly important as the chief source of natural gas for Europe, and Bolivia is particularly important to South America in terms of natural gas supply.

…while a new map of energy geopolitics emerges, with disturbing consequences.

In a post-Cold War world, growing demand for energy has led to new strategies, the pursuit of new alliances, and aggressive tactics by both producing and consuming nations. The global supply network and players are shifting, indicating a change in the world energy map and geopolitics. Although the US has not learned the lessons of the past and has increased its dependence on imported petroleum, the US is not alone on this account. Many countries are more susceptible to high prices and supply interruptions than the US. Under the best of circumstances, the US and the global

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[6] US Government Accountability Office, *Understanding the Factors That Influence the Retail Price of Gasoline*, May 2005, p. 38.

[7] Written testimony from Mr. Paul Sankey, Deutsche Bank, at the Subcommittee on Energy and Resources October 19, 2005 hearing, "*Petroleum Refineries: Will Record Profits Spur Investment in New Capacity?*"

[8] Written response from Mr. Michael Zenker, to Chairman Issa's followup question from the September 14, 2005 hearing, *Meeting America's Natural Gas Demand: Are We in a Crisis?*

economy will be increasingly dependent on oil for the next 20 years.[9] In addition, countries that made great strides in reducing petroleum consumption or at the very least reducing demand growth, such as Western Europe and supposedly "energy independent" Brazil, suddenly find themselves vulnerable to the machinations of natural gas producing nations.

Energy as a Weapon

Energy as a weapon reemerges as a tool of coercion and political leverage for Russia and Iran…

Nowhere has the wielding of political power in energy markets by governments and state-owned companies been more in evidence than in Russia. State-owned Gazprom, the largest natural gas producing company in the world, used its supply of natural gas in an attempt to subvert Ukrainian sovereignty from Russian influence. Russian government officials and Gazprom executives acted in concert to pressure the Ukraine into paying exorbitant prices for natural gas. A compromise agreement to phase-in a less damaging but still high price was reached, but only after Russia reduced the flow of natural gas to the Ukraine, affecting greater Europe. More than one-quarter of natural gas consumed by European Union countries is imported from Russia—almost 40 percent in all European countries—and 80 percent of that transits Ukraine.[10]

A number of Russia's neighbors have scrambled to negotiate new agreements with Russia or to seek alternative arrangements, most likely with varying rates of success. In essence, they have been forced to make a choice between being firmly in Russia's sphere of influence or moving closer to greater Europe with doubtful prospects for a near-term solution to their energy problems. Most recently, Gazprom officials have issued thinly-veiled threats to divert supplies from European countries to China or other customers, particularly if Gazprom's acquisition plans for gas companies or investment in pipeline infrastructure outside of Russia are blocked.[11]

Russia is not the only producing country to use energy as a weapon. Iran has repeatedly threatened to withhold oil from the world market should sanctions be imposed as a result of Iran's ill-advised program to enrich uranium. Oil price volatility has resulted as mixed messages were issued from Iran—President Ahmadinejad has made the threats while Iran's oil minister has sought to downplay the likelihood of withholding oil from the markets.[12] The issuance of Ahmadinejad's letter to President George W. Bush has also roiled markets, as hopes for a solution rose and then fell with the rejection of the letter and serious concerns expressed by some elements of the Arab press regarding Ahmadinejad's regional ambitions for power.

Energy as a weapon is also used by militant or rebel groups within states to achieve political goals. The Movement for the Emancipation of the Niger Delta (MEND) has emerged in Nigeria.

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[9] Jan H. Kalicki and David Goldwyn, "Introduction: The Need to Integrate Energy and Foreign Policy," in *Energy & Security: Toward a New Foreign Policy Strategy*, Kalicki and Goldwyn, eds., p. 1.
[10] *Stratfor*, "EU: Exploring Its Energy Options," 1/03/06.

[11] *Greenwire*, "Natural Gas: Gazprom threatens EU supplies, 4/20/06; Glenn Kessler, "Rice Warns Against Russian Gas Monopoly," *Washington Post*, 4/26/06.

[12] Bhushan Bahree, Carla Anne Robbins, and Chip Cummins, "Oil Minister Asserts Iran Won't Cut Exports Despite Nuclear Standoff," *Wall Street Journal*, 4/26/06.

MEND has targeted oil companies and their workers, which has led to a decline in production and a slowdown in the transport of oil.[13]

Nationalization and Expropriation

…while some governments cannot resist the temptation of populist nationalization at a time of high prices.

Similar to gambits by Russia and Iran, Venezuela has threatened to withhold crude oil from the American market. However, Venezuelan President Chavez has been more aggressive in pressuring international petroleum companies into renegotiating existing agreements for production in Venezuela, with the implication that companies that do not cooperate may have oil or gas concessions voided or expropriated. Following Chavez's lead, Bolivian President Evo Morales' government has been reviewing production agreements with foreign companies for "fairness." Morales' decision to nationalize its natural gas reserves—complete with a military presence—caused much consternation among importers and investors, particularly Argentina and Brazilian state-run company Petrobras, which has suspended investment in Boliva. Sao Paulo, Brazil's largest urban area and industrial hub, depends on Bolivian supplies for 75 percent of the natural gas it consumes.[14]

Expropriation and forced renegotiations of agreements are not limited to Venezuela and Bolivia, nor to South America. In times of low commodity prices, countries with few sources of income are apt to welcome foreign, especially private, investment. When prices rise to record levels, it is tempting for the same countries government officials to raise taxes, change royalty percentages, or expropriate assets under the guise of fairness or "anti-corruption." However, the nationalization of assets and using energy supplies as a threat act as powerful disincentives to private or foreign investment. This is already being witnessed in Venezuela and Russia, where necessary upgrades and maintenance of equipment are not occurring due to a lack of investment.

Mercantilism

China emerges as the champion of "neo-mercantilism" to feed its economic growth and burgeoning population, as international oil companies find themselves on the defensive…

National or state-owned oil companies are pursuing global contracting and partnership opportunities that were previously the reserve of international oil companies. This development is of particular concern since government-controlled companies already manage 72 percent of the world's oil reserves, 55 percent of gas reserves, and more than half of current world oil production.[15] Furthermore, mercantilist policies have come under increased scrutiny because the motives of the chief practitioner, the government of China, are viewed with skepticism by some US analysts.

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[13] Austin Ekeinde, "Foreign Oil Workers Kidnapped in Nigeria," *Washington Post*, 5/11/06.

[14] Geraldo Samor and Matt Moffett, "Bolivia Nationalization Puts Investors Off Balance," *Wall Street Journal*, 5/3/06.

[15] Testimony of Mr. Frank Verrastro, Director of the Energy Program, Center for Strategic and International Studies, before the Senate Committee on Energy and Natural Resources, February 3, 2005.

China is using increasingly aggressive tactics to secure long-term access to oil and natural gas. Chinese state-owned companies have sought to strengthen China's hand in a new and extended "great game" of geopolitics through regional agreements and acquisitions.[16] The China National Petroleum Company has acquired petroleum concessions in Kazakhstan, Venezuela, Sudan, Iraq, Iran, Peru, Ecuador, and Azerbaijan. The China Petroleum Corporation is seeking to purchase overseas upstream assets. State-run oil companies from China, the Philippines, and Vietnam have signed an agreement to jointly conduct a seismic survey in the South China Sea to systematically determine energy potential in the area. China and Canada are promoting cooperation in oil sands production. In October 2005, the China National Petroleum Corporation successfully sealed a deal for PetroKazakhstan. The first fuel has already been delivered through the 1,800-mile Atasu-Alashankou pipeline between Kazakhstan and China. The pipeline will also transit Russian oil to China from western Siberia. Finally, China recently completed a number of energy agreements with Russia, including a joint venture between state-owned companies.[17]

China has also not hesitated to seek out sources controlled by governments hostile to US interests. In addition to expansion of Chinese influence, it is an issue of great importance because these states may view China as a "buffer" against what they perceive as US aggression.[18] China receives almost 15 percent of its oil from Iran and is the largest buyer of oil from Sudan. In December 2004 Venezuelan President Hugo Chavez signed eight agreements in Beijing that prepared the foundation for granting Chinese oil companies preferential access to oil and gas projects in Venezuela, including exploration and production, and the construction of new pipelines, refineries, and petrochemical plants. Both China and India have entered long-term agreements with Iran for natural gas supply, and both countries have taken equity stakes in Iranian natural gas production. Chinese and Indian companies recently submitted a joint bid to obtain a 38 percent share of a Syrian petroleum company.[19]

Some experts are wary of China locking up supplies to challenge US hegemony. Others believe the amount of contracted long-term supplies of crude oil and natural gas are too small to be of consequence, and the mainstream media do not typically publicize international oil companies' acquisitions in the name of nationalism or national security. For their part, the executives of Chinese energy companies claim their goal is for the companies to make money for shareholders and to be competitive players with the traditional petroleum giants such as Exxon Mobil.[20] At the minimum, state-to-state agreements tend to distort markets and investment because subsidized, state-owned companies may operate at a loss while private corporations do not have that option.

…and a more vulnerable US reassesses its energy security in a changing geopolitical environment.

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[16] The first "great game" refers to the conflicts and maneuvering to control the resources of Central Asia during the 19th Century.

[17] *Stratfor Situation Reports*, 3/22/06, 8/26/05, 8/22/05, 3/14/05.

[18] *Stratfor*, "China's Overseas Expansion Strategy," 4/17/03.

[19] *Stratfor Situation Reports*, 11/29/05, 12/2704.

[20] This argument was put forward at a recent industry conference by Fu Chengyu**,** Chairman and Chief Executive Officer of the China National Offshore Oil Corporation. A number of Chinese companies are traded on stock exchanges, but the Chinese government is majority owner of all of them.

ISSUES TO BE ADDRESSED AT THE HEARING:

- What are the effects of energy being used as a weapon on world and domestic markets, and how does its use affect energy security?
- How are government agencies working together to meet the challenges presented by "energy as a weapon," nationalization, and mercantilism?
- What are the Department of State and the Department of Energy doing to promote private investment and unobstructed trade in critical energy supplies?
- How is the US working with the international community and other countries to address a potentially catastrophic supply disruption?

WITNESSES:

Panel 1

The Honorable Karen Harbert, Assistant Secretary for Policy and International Affairs, US Department of Energy

The Honorable Paul Simons, Deputy Assistant Secretary for Energy, Sanctions, and Commodity Policy, US Department of State

Panel 2

Dr. Daniel Yergin, Chairman, Cambridge Energy Research Associates

Ambassador Keith C. Smith, Senior Associate, Center for Strategic and International Studies

Mr. David Goldwyn, Goldwyn International Strategies

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