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“Energy as a Weapon: Implications for US Policy”

Good afternoon, Chairman Issa, Chairman Shays, and members of the Committees. I am pleased to appear before you today to discuss the Administration’s efforts to meet the energy challenges facing the United States today- from both a national security and economic aspect.

The Administration believes that energy security is inextricably intertwined with our economic prosperity and our national security. Access to secure reliable and affordable energy sources is fundamental to our national economic security. This idea is highlighted in the 2005 Energy Policy Act that was signed into law by President Bush last summer, and is a fundamental principle of the Advanced Energy Initiative and the American Competitiveness Initiative laid out by the President in his State of the Union address in January.

Energy is the lifeblood of economies around the world; global economic growth depends on adequate, reliable and affordable supplies of energy. Key foreign policy objectives, including support for democracy, trade, sustainable economic development, poverty reduction, and environmental protection rely on the provision of safe, reliable and affordable energy supplies. As the world’s largest producer and consumer of energy resources, the US must play a leading role in addressing the world’s energy challenges and ensuring a secure energy future.

The global nature of energy markets means that supplying adequate, affordable and reliable energy services is a responsibility we all share and one we must continue to address as a global community. Actions taken by any country to misuse or mismanage its energy resources without considering the global implications of its actions will have far-reaching negative impact. As traditional energy resources become less available and more difficult to develop, energy security will become an even more critical component of economic security and national security.

A few key trends are of particular concern. Most of the energy that drives world economies today is derived from fossil fuels, in particular petroleum, and this energy comes from a relatively small number of producers. The world’s dependence on a few

countries is neither responsible nor sustainable over the long term. Record high oil prices indicate limited spare oil production capacity in the world market due to a lack of investment in new supply and high levels of demand growth in many parts of the world. Resources are often located in places that are geographically hard to reach, geologically difficult to develop, politically unstable, or unfriendly to new foreign investment. Environmental and climate change challenges will only become more prevalent in the years to come and require responses in ways that provide energy for economic growth and poverty reduction, while ensuring the long-term safety of our planet.

To cope with the full range of possible consequences of these trends, we must employ forward-looking policies that proactively address the energy challenges of today and tomorrow. We must maintain a diverse energy mix coming from varied sources. In the United States, we are striving to be better consumers through our efforts to conserve energy and diversify our supply sources. We are working to make energy efficiency improvements in our homes, places of work and modes of transportation. In the long-term, the Department of Energy is focusing on transformational technologies that will fundamentally change how we produce and consume energy. In the meantime, we must use the energy resources at our disposal in the most efficient, effective, and strategic manner possible.

The U.S. goals to achieve a more diversified world energy market to improve global energy security include:

- Expanding energy production to meet the needs of a growing global economy;
- Using technology to diversify the types of energy we consume, improve energy efficiency, and lessen the environmental burden of energy consumption;
- Improving investment climates in resource-rich countries and pursuing market-based pricing; and,
- Modernizing and protecting global energy infrastructure.

Countries are pursuing different strategies to meet the increasing energy demand on their growing economies. The U.S. strongly believes in the power of open markets to most efficiently determine price, and adjudicate supply and demand. However, there are other countries that do not ascribe to our philosophy. These are countries which do not appear to utilize their resources for the good of their citizenry; and, instead, show strong tendencies towards using energy as a foreign policy tool to further their agendas around the world.

The U.S. has long recognized the importance of an unimpeded supply of energy to our economy which is why in 2001 President Bush ordered the filling of the U.S. Strategic Petroleum Reserve. It is a critical primary tool in the event of a major supply disruption. The International Energy Agency's 26 member countries, which encompass most of the advanced industrialized world, also hold strategic oil stocks equivalent to at least 90 days of oil imports for coordinated drawdown in the event of a severe supply disruption. In such an event of a supply disruption, the U.S. coordinates with other IEA members on the timing, amount and characterization of oil stock releases. The U.S. may also unilaterally

draw down the SPR. However, many countries are not part of the IEA, such as China, Russia, and India. The U.S. is working with China and India other countries to establish strategic stockholding reserves and to identify ways to coordinate a global petroleum release response if needed in a severe supply emergency.

### **Where are the Resources?**

The U.S. imports approximately 60% of its oil. The top ten suppliers to the U.S. are Canada, Mexico, Saudi Arabia, Venezuela, Nigeria, Iraq, Algeria, Angola, Russia and the United Kingdom. We import 15% of our natural gas principally from Canada, Trinidad and Tobago and Algeria.

Now, much of the world's untapped hydrocarbon resources are controlled by governments and national oil companies with limited access afforded to international energy companies.

New resources are concentrated in the Middle East, North Africa, Russia and Central Asia. Saudi Arabia is estimated to have over 260 billion barrels of oil reserves and is making significant investments to increase its daily production by almost 30%. Iraq has tremendous reserves as do the United Arab Emirates and Kuwait. In Africa, Nigeria and Libya with combined reserves estimated at 75 billion barrels will be important suppliers to the world market. Continued violence in Nigeria poses a significant challenge for current and prospective investors.

Resource estimates for the Central Asia-Caspian region vary widely because many areas of the region have not been fully explored. The Energy Information Agency (EIA) indicates that proven oil reserves are somewhere between 17 and 72 billion barrels. Companies have estimated that resources (not proven reserves) are in excess of 100 billion barrels. EIA indicates the region's proven natural gas reserves at 232 trillion cubic feet. Again, natural gas reserves are not fully explored and could be considerably greater. The challenges are in developing and exporting these resources.

Russia has vast oil and gas reserves. Its proven oil reserves are conservatively estimated at about 60 billion barrels and the world's largest natural gas reserves of about 1680 trillion cubic feet. However, Russia does not make its reserve data public so there is uncertainty over these figures.

There are significant challenges in both Russia and Central Asia to tap these reserves, including problems with the investment and business climate, corruption, rule of law, and transparency. Each country faces its own challenges in improving the environment that will encourage more energy investment and business. In Russia, the government has moved rapidly to consolidate its control over the energy sector, and has yet to enact a law outlining the terms for foreign investment. We expect the legislation will place restrictions on companies deemed foreign and limit foreign investors from developing "strategic" oil and gas or mineral deposits. At this time, the Russian government has not specified what type of ownership structure constitutes a foreign firm or which assets will

be considered strategic. This lack of predictable legal environment has slowed investment and resulted in decreased production.

We must not forget that our most important energy partner in the world is Canada. It is our number one supplier of oil. The Canadian provinces of Alberta, British Columbia and Saskatchewan provide the vast majority of our natural gas imports, and Canada provides more than 80 percent of all natural gas entering the United States. There are a number of new oil and gas projects on the horizon in Canada. We have a strong, stable relationship with this strategic ally.

Mexico also has great potential to increase its output. However, provisions in its constitution prohibit private investment in the oil and gas sector, limiting the country's production and ability to access new technologies that would spur output. Mexico ranks fourteenth in world proven oil reserves with 12.9 billion barrels, but must import both gasoline and 25 percent of its natural gas needs from the United States, even though it has the potential to be a natural gas exporter given its sizeable reserves.

Venezuela sends around 60 percent of its oil exports to the United States, approximately 1.5 million barrels per day. One of the most important outlets of Venezuela's state oil company Petroleos de Venezuela (PdVSA) lies on our shores. Venezuela fitted its CITGO refineries in the United States to use Venezuelan heavy, sour crude oil as feedstock, and few refineries of this kind exist anywhere in the world in numbers sufficient to make Venezuela crude oil imports economic.

Venezuela has significant additional heavy oil potential. According to PdVSA, Venezuela has as many as 270 billion barrels of extra-heavy and bitumen deposits. Venezuela would require significant amounts of investment, similar to the current investment levels in Canada's oil sands sector (around \$25 billion to date, and projected to reach \$100 billion by 2020) to develop these resources. Venezuela needs technological expertise to fully develop this important reserve. Currently PdVSA production is declining significantly - producing almost 50% less than its peak. Total Venezuelan crude output is now only 2.5 million barrels day total crude output (EIA, 2/06). This is the lowest level of PdVSA production since the oil workers strike in Venezuela in 2002-2003 and emphasizes PdVSA's need for investment and technical expertise. Increasing restriction on foreign investment in the oil sector will lead to declining appetite for investment and declining production.

### **How is Energy Being Manipulated Today?**

We are witnessing growing tendencies in producing countries to manipulate the use of their natural resources. However, we believe that all of these efforts are self-defeating and the nation that employs them itself pays the ultimate price not the energy markets. As was shown in the aftermath of Hurricanes Katrina and Rita, the market does adjust to changes in supply. Recent trends include:

- 1) Limiting access to the resources for commercialization thereby limiting supply. However, this ultimately has a negative impact on the economy of the nation that is depriving its citizens of the revenue generated by the development of these assets.
- 2) Renegotiating contracts or expropriating assets. This undermines the country's credibility and reduces incentive for investment in the country broadly.
- 3) Renationalizing assets. International energy companies have the needed capital and technology to unlock these challenging resources, most government and national oil companies do not.
- 4) Cutting off supply. This reduces the country's reliability as a supplier, deprives the population of needed revenue and accelerates affected countries' plans for supplier diversification.
- 5) Cheap petroleum. Countries that provide reduced price product or concessionary financing deprive their own economies' of revenue and encourage an unhealthy reliance on non-market priced oil which is not sustainable.

### **Is China's Growing Demand a Threat?**

China has responded to its growing need for energy through domestic policies such as increasing domestic oil production, working to increase energy efficiency to maximize output from existing resources and increasing the use of renewable energy, but it has also sought to enhance its energy security by diversifying its energy supply through imports and by acquiring overseas assets.

In recent years, the Chinese have significantly increased the number and geographic distribution of energy assets and investments. Chinese national oil companies have invested in oil ventures in over 20 countries. This has prompted concerns that actions by Chinese companies to acquire energy assets will "remove" energy resources from the competitive market, which, according to some, has the effect of constricting supply and thereby raising world prices. However, because China can be expected to consume the vast majority of any resources it does acquire, the effects of these purchases should be economically neutral. Even if China's equity oil investments "remove" assets from the global market, in the sense that they are not subsequently available for resale, these actions merely displace what the Chinese would have otherwise bought on the open market. Ultimately, we believe that the market is the best adjudicator of price, supply and demand.

### **The Real Threat: Lack of Investment**

The International Energy Agency estimates that world energy consumption will grow by as much as 57% by 2025 requiring over \$16 trillion in investment to meet that demand. That investment depends on market transparency in producing countries. Clear business practices and stable regulatory frameworks for investment in the energy sector --

including increased opportunity for foreign investment -- will help ensure a sufficient supply of energy for a growing global economy. Market-based pricing of energy resources worldwide will also encourage responsible and efficient consumption.

Energy projects are complex, capital intensive and take years to bring new resources on line. Pipelines which cross national boundaries are even more time intensive. Therefore, the investment needed to unlock these untapped natural resources needs to be mobilized now.

### **Security through Engagement and Cooperation**

The Department of Energy maintains frequent and regular contact with producing and consuming nations. Likewise we also maintain open lines of communication with leaders in the private sector who are the principal operators of much of the international energy assets and infrastructure. Greater transparency among nations is necessary to avert surprises and instill confidence in the market. Just this month Secretary Bodman met with his counterparts from Saudi Arabia and our number one and number two suppliers of oil, Canada and Mexico. This month, the Department is hosting a delegation from China to improve our cooperation on energy efficiency as a means to reduce strain on supply.

In April Secretary Bodman participated in the International Energy Forum where 69 producing and consuming nations convened to discuss how to fuel our future. During his visit to Doha Secretary Bodman also held bilateral talks with a number of nations on the need for responsible actions to bring stability to the energy market. There is a need for free flowing information between consumers and producers and this information sharing is the first and, perhaps the most important step towards cooperation.

Russia will host the G-8 Summit in St. Petersburg in July. Russia has chosen energy security as one of the Summit agenda items. We are hopeful that the outcome of the G-8 will be a better understanding of the importance of promoting reliability, diversity, efficiency, transparency and rule of law.

As the Administration engages in dialogue with both producing and consuming nations we stress the need to work constructively to promote the removal of barriers to energy investments and trade as well as the need for transparency, sanctity of contracts and the establishment of clear laws and regulations that are consistent. Our efforts with consuming nations are focusing on diversifying energy portfolios, energy efficiency approaches and ways to work towards new technologies that we believe can change the way we power our homes, our businesses and our automobiles.

### **Security through Diversity**

The Administration has determined that over the long term our best energy strategy is one based on achieving diversity of supply. We are making every effort to address America's short term energy needs while ensuring that we are able to meet future energy demands. Reducing America's dependency on imported oil has been and will continue to be a

priority for this Administration. In 2001, President Bush put forward the National Energy Policy, which laid out over 100 recommendations to increase domestic energy supplies, encourage efficiency and conservation, invest in energy-related infrastructure, and develop alternative and renewable sources of energy. Since 2001, the Administration has spent nearly \$10 billion to develop cleaner, cheaper, and more reliable alternative energy sources.

In order to secure our energy future, we will work to transform how we produce and consume our energy resources, and ensure the next generation of leaders has strong foundations in science and technology. During his State of the Union address, President Bush outlined two new initiatives that are based on the belief that scientific discovery and technological advancement are the keys to maintaining America's economic leadership and meeting our future energy needs.

The Advanced Energy Initiative (AEI) will accelerate investment into clean energy technologies in order to transform the way we produce and use energy in our homes, businesses and our transportation sector. To achieve these goals, the President has requested \$2.1 billion in FY 2007 -- a 22 percent budget increase -- to develop new technologies and alternative sources of energy to help diversify and strengthen our nation's energy mix. The AEI is focusing on technologies that we believe hold the greatest promise for American taxpayers, including solar, wind, biofuels, hydrogen, nuclear, and clean coal technologies.

The President's Biofuels Initiative is another essential part of the AEI. The initiative aims to use non-food based biomass in the production of transportation fuels, electricity, and other products.

America has an abundant amount of coal, enough to last more than 200 years. In 2001, President Bush committed \$2 billion over 10 years to accelerate R&D in clean coal technologies that could generate affordable electricity while meeting emerging environmental regulatory standards. The Administration's FY 2007 Budget request will nearly complete the President's commitment four years ahead of schedule.

Another important component of the Advanced Energy Initiative is the Global Nuclear Energy Partnership (GNEP). This new initiative is a comprehensive strategy that could help meet our growing demand for energy, both here at home and globally. GNEP enables an expansion of nuclear power in the U.S. and around the world, promotes non-proliferation goals, and helps resolve nuclear waste disposal issues.

Through the American Competitiveness Initiative, the President has proposed to increase Federal investment in critical areas of research to ensure that the United States continues to lead the world in opportunity and innovation, and provide American children with a strong foundation in math and science.

### **Concluding Remarks**

The Administration believes that access to secure, reliable and affordable energy is fundamental to national security. We also believe that a strong, stable and prosperous global energy market can be created by all countries basing their energy development, transportation and use on market reliance; by allowing for private capital to ensure optimal development; and by using the best technologies and a broad range of energy resources to give consumers the best choices.

However, energy security depends on the choices countries make, and we are concerned that some countries are making choices that will not optimize the development of energy resources. Moves to restrict foreign investment and increase the reach of state-run energy industries limit their ability to access capital for investment, restricting the development and access to energy supplies and infrastructure. It is a model that may hold patriotic appeal but delivers less prosperity to citizens.

We strongly believe in the power of private investment and market-based energy policies. Other countries may make other choices, but their long-term prosperity and the well-being of their citizenry are at stake. The United States stands ready to work with our partners around the world to achieve a stronger energy future for all of our citizens – one that is grounded in open and integrated markets and open and transparent economic regimes.

Thank you for the opportunity to address the committees and I look forward to answering any questions you have.