ENERGY SECURITY AS A GLOBAL PARTNERSHIP

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In a world of increasingly integrated energy markets, countries can ensure their access to reliable, affordable, and environmentally sound energy only by working in a variety of international partnerships.

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The fundamental objective of U.S. energy policy is to ensure that our economy has access to sufficient, affordable, and reliable energy supplies on terms and conditions that support economic growth and prosperity. However, due to the globalized nature of the oil market and the increasingly integrated natural gas market, events that negatively (or positively) impact the energy security of any country can affect the energy security of the United States, and vice versa. A pipeline attack in Nigeria, tension over Iran's nuclear program, burgeoning economic growth in China and India, and natural disasters like Hurricane Katrina are issues that have direct impacts on global energy security. Therefore, the best way to strengthen U.S. energy security is to take steps to strengthen global energy security. How can this be achieved? One important element is an active process of outreach and energy diplomacy that the United States has pursued for more than 30 years.

As the world's largest producer and consumer of energy resources, the United States must play a leading role in addressing the world's energy challenges and ensuring a secure energy future. Ensuring our national energy security requires well-coordinated international efforts given the increasingly integrated nature of the world's energy markets. It also implies that the global community has a responsibility to ensure adequate, affordable, and reliable energy supplies and services. To advance this goal, the U.S. international energy security policy draws on four key elements:

• promoting the diversification of energy sources and supplies, worldwide;

- working with other oil consuming countries to respond to supply disruptions, particularly through the use of strategic petroleum stocks;
- pursuing dialogue with major oil-producing countries to maintain responsible production policies to support a growing world economy and to reduce oil market price volatility;
- working with other countries to reduce global dependence on oil, by promoting greater energy through efficiency and the development of alternative sources of supply.

DIVERSIFICATION OF ENERGY SUPPLIES

The U.S. government has taken a number of steps over the years to promote the diversification of energy supplies and transit routes. Although the Middle East dominates—and will continue to dominate—world oil markets, the development of new supplies in a number of other regions in the world is an important objective. The United States imports energy from a diverse array of suppliers, including Canada, Mexico, Saudi Arabia, Venezuela, Nigeria, Angola, Russia, and the United Kingdom. We are actively engaged with these and a broad array of other countries in order to foster diversity of sources of energy supply and modes/routes of transit so as to lessen the impact of supply disruptions, whether they are natural or man-made.

Europe

We are working with the European Union (EU) on broad and deep cooperation on energy security, announced at the 2006 U.S.-EU Summit, of which a key element is work on diversification of energy sources and supplies. Among other steps, we will jointly engage with key energy producers and consumers to encourage their diversification efforts, coordinate to provide technical assistance to improve legal and regulatory frameworks for energy in third countries, support maintenance and improvement of pipeline infrastructure to ensure delivery capability, encourage investments in energy diversification,



U.S. Energy Secretary Samuel Bodman, second right, shakes hands with Turkish President Ahmet Necdet Sezer as Georgian President Mikhail Saakashvili, second left, looks on and Azerbaijani President Ilham Aliyev, right, applauds during an inauguration ceremony of the Baku-Tbilisi-Ceyhan pipeline in Azerbaijan in May 2005.

and analyze geopolitical developments in key energy producing and consuming countries to coordinate responses. In addition, since 2002, U.S.-funded technical assistance programs have supported the Energy Community Treaty for Southeast Europe, which is aimed at creating electricity and gas markets in the energy transit countries of Bulgaria, Romania, Serbia, Macedonia, Bosnia, and Albania, with the added participation of Greece, Italy, Austria, Moldova, and Hungary.

Caspian Region

A major U.S. foreign policy priority since the mid-1990s has been the development of multiple pipelines to provide for the export of oil and gas from the Caspian region to the rest of the world. The Caspian Basin represents one of the most significant new sources of non-OPEC oil in recent years, and production should continue to grow in coming years. In addition to enhanced energy security, our policy in the region has been aimed at strengthening the sovereignty and economic viability of new nation-states, enhancing regional cooperation, and avoiding the potential bottlenecks and conflicts that might arise from rising petroleum exports through the Turkish Straits.

Latin America

The United States benefits from strong energy relationships with Western Hemisphere countries. In 2004, three of four of our largest oil import suppliers were from the Hemisphere: Mexico (15.9 percent), Canada (15.8 percent), and Venezuela (12.9 percent). Canada is our number one supplier of natural gas while Trinidad and Tobago is our largest supplier of liquefied natural gas. The United States participates in regular dialogue with Mexico and Canada to integrate the

North American energy market. We also support Mexico's Mesoamerican Energy Initiative, which aims to integrate Central American and Dominican Republic energy markets. We are working throughout the region to promote use of alternative and renewable sources of energy, building on Brazil's position as a world leader in the production of biofuels.

STRATEGIC PETROLEUM STOCKS

A second pillar of our international energy security policy is the multilateral cooperation we have forged through our membership in the International Energy Agency (IEA). Formed in the wake of the 1973 Arab oil



A man works at an ethanol distillery in the southern Brazilian state of Parana.

embargo, the IEA coordinates releases from emergency stockpiles for those events that shake global energy markets. Collectively, IEA members hold 1.4 billion barrels of strategic stocks, equal to some 115 days of imports. The U.S. Strategic Petroleum Reserve holds nearly 700 million barrels, or roughly half of total global strategic stocks. In 2005, the IEA's rapid release of stockpiles worldwide from its 26 members in the wake of the devastation

of Hurricanes Katrina and Rita helped to stabilize the markets and kept those events from causing even more disruption. Collectively, IEA members made 60 million barrels of oil available to the market. This was only the second time in the IEA's history that stocks were released, but the action had an immediate calming effect on world markets. We are encouraging other major consuming countries, such as India, China, and member states of the Association of Southeast Asian Nations to hold strategic petroleum stocks, and support enhanced efforts to bring India and China into closer cooperation with the IEA on both short-term emergency response policies and broader energy security and technology policies.

DIALOGUE WITH PRODUCERS

A third pillar of our international energy security policy is to maintain an active dialogue with major oil- and gas-producing countries. Our objectives are not only to exchange information on oil markets, but to encourage producers to maintain responsible production policies, to support a growing world economy, and to reduce oil market price volatility. We have pursued dialogues with a number of the major oil-producing states, particularly Middle Eastern producers, for a number of years, in some cases since the 1980s. These have included formal bilateral exchanges with some countries, and regular discussions among high-level officials and through our embassies in the region.

As evidence of the maturing relationship between producing and consuming countries, the IEA member states and Asia Pacific Economic Cooperation (APEC) countries are working with key Organization of Petroleum Exporting Countries producers to improve the efficiency and transparency of oil markets—to try to avoid the sort of market surprises that led to some of the shortages we see today. Since the 1990s, the United States has actively participated in the global producer-consumer energy

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dialogue, which has developed into the International Energy Forum (IEF). The IEF is an informal group consisting of about 50 countries and international organizations dedicated to promoting better understanding of international oil and energy market developments and policy issues among its members. The IEF secretariat, located in Riyadh, Saudi Arabia, is leading efforts on developing the Joint Oil Data Initiative (JODI), which is designed to improve transpar-

ency and information sharing in the global oil market.

ENERGY EFFICIENCY AND ALTERNATIVE ENERGY SOURCES

The oil crunch of the 1970s also encouraged more progress in the area of energy conservation and efficiency. Since 1970, the energy intensity of the U.S. economy—the amount of energy we consume per dollar of gross domestic product (GDP)—has fallen by almost 50 percent thanks to efforts at conservation. We support programs that provide for incentives for enhanced energy efficiency, conservation, and reductions in greenhouse gas emissions. In the United States, for example, Energy Star labels, which signal high efficiency in office buildings and appliances, were initially developed for domestic use, but they have proven so successful that they have been adopted in many countries.

ALTERNATIVE ENERGY SOURCES

The United States is also engaged in multilateral efforts to obtain alternative energy sources. Several nations have already joined us in a multilateral partnership known as the Generation IV International Forum, which conducts research and development for the next generation of safer, more affordable, and more proliferation-resistant nuclear energy systems. We are working with several countries on FutureGen—an initiative to build the world's first integrated carbon-sequestration and hydrogen-production research power plant. The \$1-billion-dollar project is intended to create the world's first zero-emissions fossil fuel plant.

Most recently, the United States put forth a bold new vision of the future of nuclear power known as the Global Nuclear Energy Partnership (GNEP). Through GNEP, the United States will work with other nations possessing advanced nuclear technologies to develop new



An artist's rendering of a FutureGen coal plant.

proliferation-resistant nuclear fuel recycling technologies in order to increase U.S. and global energy security; provide for expanded use of economical, carbon-free nuclear energy; minimize nuclear waste; and curtail proliferation concerns. Additionally, these partner nations will develop a fuel services program to provide nuclear fuel to developing nations, allowing them to enjoy the benefits of abundant sources of clean, safe nuclear energy in a cost- effective manner in exchange for their commitment to forgo enrichment and reprocessing activities, thus alleviating proliferation concerns.

The United States has initiated, or served as a founding member of, several international technology partnerships designed to share data and best practices among nations while reducing the time and expense needed to achieve technological breakthroughs. For example, the International Partnership for a Hydrogen Economy was formed to advance the global transition to the hydrogen economy, with the goal of making fuel cell vehicles commercially available by 2020. The Methane-to-Markets Partnership works closely with the private sector to develop methods to recapture waste methane escaping from landfills, leaking from poorly maintained oil and gas systems, and vented from underground coal mines. In order to obtain improved energy security, reduce pollution, and address the long-term challenge of climate change, the United States, along with China, India, Japan, Australia, and the Republic of Korea, recently launched the Asia-Pacific Partnership for Clean Development and Climate. The

partnership will focus on voluntary practical measures taken by the six countries to create new investment opportunities, build local capacity, and remove barriers to the introduction of clean, more efficient technologies.

Earlier in 2006, President Bush announced a major new initiative, the Advanced Energy Initiative, to invest in new technologies that we believe can change the way we power our homes, our businesses, and our automobiles. By developing new energy technologies, such as biofuels, hydrogen, and solar, we should be able to take pressure off markets, enhance the sustainability of precious natural resources, and keep energy prices affordable. The president's strong support for research into the potential of cellulosic ethanol as a fuel source and battery technology for plug-in hybrid vehicles is particularly important to reduce our dependence on petroleum-based transport fuels. And while we can be sure that the world will still have a great need for oil and gas, developing alternatives and renewable sources now is in everyone's long-term interest. Many of these fuels are cleaner forms of energy that complement our environmental goals as well by emitting fewer pollutants into the air.

WORKING IN GLOBAL PARTNERSHIP

As President Bush and Secretary of State Condoleezza Rice have noted, we remain concerned with the potential economic risks posed to the United States by reliance on imported oil and by instability in the Middle East, where much of the world's oil is produced. At the same time, oil is a global commodity, and a disruption in supply anywhere in the world will have an immediate impact on all oil-importing countries, no matter where their oil comes from.

Energy security is a leading priority of the U.S. government. However, energy security can only be achieved by working in global partnership with other countries. Our bilateral and multilateral relationships are the means through which the United States will achieve energy security. The United States has a national interest in working with other countries to ensure that reliable, affordable, and environmentally sound energy is available to power U.S. and world prosperity.