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### ***Unconventional Natural Gas: The U.S. Experience and Global Energy Security***

**Robert F. Cekuta**

Deputy Assistant Secretary, Bureau of Economic, Energy and Business Affairs

#### ***Address to the 2nd U.S.-Indonesia Energy Investment Roundtable***

**Jakarta, Indonesia, February 6, 2012**



Good morning Deputy Minister Widjajono, Ambassador Marciel, members of the Indonesian parliament, Director General Legowo, esteemed colleagues, and friends. I am honored to have this opportunity to speak with you today about unconventional natural gas, and the potential benefits that can be realized by its responsible development. But I would like to start by just mentioning the great potential in the broader energy partnership between our two countries. The leaders of both the United States and Indonesia have worked in recent years to expand and deepen our relations. Indonesia is a natural regional partner and a co-member of the G20. Our countries have agreed to a Comprehensive Partnership, and a Joint Commission - led by Secretary of State Hillary Clinton and Foreign Minister Marty Natalegawa - which includes an Energy Working Group. Energy, I should note, is an area of global foreign policy that Secretary Clinton has determined needs increased focus and emphasis including because of its role in global economic growth and security. These things reflect the importance both our countries place on the relationship and on the issues and opportunities in the energy sector here. Deputy Minister Widjajono, Director General Legowo: Thank you for hosting us in this wonderful country; I hope that this roundtable and related meetings are productive and demonstrate the depth of U.S. commitment to Indonesia's energy prosperity.

**Ladies and gentlemen the reality, something that has surprised many Americans, is that in 2010 the United States produced more natural gas than any country in the world; more than all the countries of the Middle East combined.** That one fact alone should give you an idea of the transformative effect of unconventional gas in my country. President Obama mentioned this transformation in his remarks to the Congress in the State of the Union last month. During the last decade, production of unconventional natural gas, which includes shale gas, tight gas, and coalbed methane, grew to reach more than 50 percent of annual U.S. natural gas output. Development of domestic shale gas resources - resources that were once thought technologically and economically unfeasible - has been made possible due to a combination of U.S. government support for research and development and private sector entrepreneurship. The story is not finished; even as we have overcome some of the hurdles to shale gas development, we continue to examine ways to avoid and mitigate environmental and other concerns. The message of this experience is clear, however: The global energy market is changing, and if the right steps are taken, there is a strong potential that responsible unconventional natural gas development will have a significant positive impact on the economic well-being and energy security of Indonesia, as well as of many other countries around the world.

The United States deeply welcomes your interest in examining the potential that unconventional natural gas resources can offer – potentials that need to be developed with attention to the legal, regulatory, environmental, and safety challenges these technologies can pose. The experience of the United States government, and the expertise gained by our private sector, may be useful to Indonesia as it considers going down this road, and we are happy to share it with you and with others who have these resources.

### **Benefits: Increased Unconventional Gas Production in the U.S. and Globally**

Backing up a bit, it is important to recognize explicitly that access to reliable, sustainable, and affordable energy is inextricably connected to increased economic development and a higher quality of life. For most countries, and especially ones as large and economically dynamic as the United States or Indonesia, there is no one single solution to meet the growing energy security concerns as demand for energy in our countries and around the world climbs. All options must be on the table, options that include hydrocarbons, renewables, and geothermal energy as well as increasing the efficiency in how industry, business, and private consumers use energy resources.

The United States Energy Information Administration projects that, due to increased domestic production, the U.S. will be almost completely self-sufficient in natural gas by 2035. **Not that long ago, analysts maintained the U.S. would be importing 65% of our natural gas by 2035. We have granted export licenses already for two facilities to export liquefied natural gas (LNG) from the United States, exports which could begin as early as 2014 or 2015. If someone had suggested that just five years ago, they probably would have been laughed at.**

Unconventional natural gas production has not only cut our reliance on external suppliers, but it has also meant job creation, a growing resurgence of the chemical industry, the potential to replace coal fired power plants with cleaner burning natural gas, increasing the use of natural gas for transportation, and even potentially employing gas-to-liquid processes that could most immediately offset the use of oil (the price of which is increasingly on the rise). The U.S. experience provides a possible analogue that allows us to speculate about new futures. One recent International Energy Agency analysis considers a scenario of a golden age of gas – in which gas use, on an oil equivalent basis, begins to approach that of oil by 2035. This development has massive consequences, especially in China and the Middle East, if diversification provides a chance to reduce both CO2 emissions and prices.

Let's talk about prices for a moment. Traditionally the price of natural gas has been linked to the prices consumers pay for oil. While there are world-wide prices for crude, there has been no single world-wide price for natural gas. Pipeline networks along with the proximity of traditional sources of natural gas played a key role in how gas was priced in a market.

Thus, today there are roughly three major markets for natural gas, in North America, Europe and Asia, and each has a different price for natural gas; prices that can differ significantly. In Asia, natural gas often costs three to four times what it does in the United States. **Thanks to the development and production of unconventional gas, along with an extensive system for getting that gas to markets, the United States has the cheapest natural gas in the world; we currently pay less than \$3 per million btu, as compared to about \$9 mmbtu in Western Europe and up to \$15 mmbtu in Japan.** If Indonesia were able to realize its unconventional gas potential, increased production could mean more gas available to meet Indonesia's growing energy needs without having to reduce the country's role as a leading natural gas exporter.

**In the last 5 years, LNG that had been originally slated for U.S. markets has been diverted to European spot markets, forcing gas-on-gas competition as Russian suppliers had to accept lower prices for pipeline gas.**

In East Asia, recent pricing changes in China that would liberalize natural gas well head prices to reflect market prices could help spur larger development of unconventional natural gas resources. This step could help meet China's growing energy needs (reduce China's dependence on natural gas imports) and affect the dynamics of global gas markets.

Our expectations, and the expectations of many others, are that the world will continue to see a growing demand for natural gas, including as a means to lower greenhouse gas emissions and pollutants, as well as a means to improve their energy security. Indonesia is among those who could stand to benefit by realizing this unconventional gas potential.

It is important and timely that we are here today in Jakarta talking about natural gas. Canada, Mexico, Australia, China, and South Africa and numerous others have potentially significant shale gas resources. Quantifying the recoverability of these resources will require years' worth of technical assessment, exploratory drilling and production modeling. Even in the United States, where the shale gas industry is more than a decade old, the extent of our ultimately recoverable shale gas reserves is uncertain. What is clear, however, is that sizable increases in domestic gas production can be obtained in countries that do have this resource and that have undertaken the steps needed with respect to instituting the right regulatory, political, legal and commercial frameworks to make their shale industries sustainable.

### **Challenges to Unconventional Natural Gas Development**

These steps should not be ignored; the global revolution in the production of unconventional gas is not without challenges. Take shale gas, for example. To realize fully the potential this resource holds, countries must take into account factors affecting the environment and public safety. These aspects must be given serious attention. As many of you no doubt know, there has been public discussion, particularly at the state and

local levels in my country, about the safety and reliability of the technology and chemicals used in drilling for and extracting shale gas. Not just in response, but to stay ahead of the curve regarding the various aspects of shale gas production, the U. S. Secretary of Energy has established an Advisory Board for shale gas production to examine and improve the safety and environmental impact of shale gas development.

Through public meetings and extensive consultations on issues surrounding hydraulic fracturing, the advisory board developed a report that calls for stronger public communication, improving federal and state regulations, reducing emissions of air pollutants, and eliminating the use of diesel fuel in fracturing fluids. The U.S. Environmental Protection Agency is also preparing an extensive report on the impact of hydraulic fracturing on water resources, including groundwater that should be completed in 2014. The preliminary results, however, will be released at the end of this year. Both of these reports should provide further information and improve best practices among all stakeholders involved. The United States is fully committed to sharing these lessons learned with other countries interested in exploiting their shale gas potential.

**An attractive investment climate is another essential component for unconventional natural gas development for foreign and domestic investors alike, as is an adequate infrastructure. To underscore this point, the IEA projects that from 2011 to 2035 \$38 trillion worth of investment in power generation, exploration and production, and infrastructure development will be required to meet global energy demand.** Most of that investment is expected to occur in non-OECD countries such as Indonesia since that is where more than eighty-percent of this demand increase is expected to occur.

In the United States, geologists knew for decades that shale gas existed, but its geological complexity and associated high economic costs made its extraction unprofitable. However, with the right investment climate in place – a climate which included deregulation of prices, early tax incentives, a predictable regulatory process, and grants for research and development – the United States was able to make investment in this sector more attractive and industry was able to break the shale gas code through technological innovations and greater efficiencies.

Governments alone are not going provide the money needed; to develop these energy resources, the private sector will need to make – and will need to want to make – investments of money and know-how. Furthermore, as we have seen in the United States, industry can be a partner in efforts to counter the negative environmental impacts of unconventional natural gas development. These efforts include multi-well drilling pads, water recycling, the development of hydraulic-fracturing techniques that require less harmful chemicals, and the use of natural gas instead of diesel to fuel drilling equipment. Industry has also been willing on occasion to disclose the chemicals used in the hydraulic fracturing process, at times complying with government regulatory measures before they were established. All these steps resulted in a lower environmental footprint. Industry best practices do not replace sound regulations, but they demonstrate how government and industry can function as partners, not adversaries, in the development of new energy supplies.

## **UGTEP**

All this brings me to the Department of State's Unconventional Gas Technical Engagement Program, formerly known as the Global Shale Gas Initiative. The name change reflects our focus, on the need to focus, on all sources of unconventional gas, not just shale gas. It highlights too the potential these various sources have to make a significant impact on long-term global energy security and the challenges posed by their potentially harmful impacts. This government-to-government program is an important tool for sharing with other countries the experiences we have had in the United States with the development and production of shale gas and other nonconventional gas and oil resources, and what various levels of government – federal, state, and local – and industry have found to be the best practices associated with unconventional gas development. The program also seeks to inform other countries about the myriad technical, operational, environmental, regulatory, legal and commercial challenges and issues that need to be addressed in order to create a sustainable unconventional gas sector. We invite Indonesia to further its unconventional gas development process by participating in this program.

## **Conclusion**

Deputy Minister Widjajono, Director General Legowo, ladies and gentlemen, in conclusion, let me again say that unconventional gas is continuing to transform the energy outlook of the United States in dramatic ways, and could potentially transform Indonesia's energy outlook as well. However there are very important pre-conditions that make that transformation possible, and chief among them are an attractive investment climate and stable regulatory framework, policies that provide the right mix of incentives and environmental protection, and the right commercial expertise and technology to exploit safely these gas resources.

While the world faces significant and difficult challenges on the energy front – there are over 1.3 billion people in the world today without adequate access to energy – it seems that the steps needed to boost people's economic well-being will inevitably result in greater demand for energy even with all our efforts to produce energy more sustainably and utilize it more efficiently than in the past. Moreover, we must strive to decrease greenhouse gases even as we work to meet these increased energy needs. Fortunately there are steps we can take to meet these needs while boosting our countries' energy security. The development and production of unconventional natural gas resources have made significant contributions to improving the energy security and economic outlook of the United States.

There is no "one size fits all" or magic single answer for countries working to meet these challenges. Nevertheless it may well be that if the right steps are taken and appropriate measures adopted, unconventional natural gas could have a significant impact on the energy security of many countries, including Indonesia.

Indonesia stands poised to benefit from a global market that increasingly looks to natural gas for many uses, including as the bridge-fuel technology to a lower carbon energy future. Through engagement with our private sector, through dialogues such as today's, and programs such as the Unconventional Gas Technical Engagement Program, we look forward to advancing our strategic partnership for energy security into a long and fruitful future. Thank you for your attention and thank you for hosting us in this extraordinary country.

## *Opening Remarks at the IEA Workshop on Golden Rules for Unconventional Energy Prospects*

**Robert F. Cekuta**

Deputy Assistant Secretary, Bureau of Economic, Energy and Business Affairs

### **University of Warsaw Library**

**Warsaw, Poland, March 7, 2012**

Thank you Mr. Deputy Prime Minister and please let me first of all warmly thank Poland's Ministry of the Economy, Mexico's Ministry of Energy, and the International Energy Agency for developing and hosting today's event.

Today's is exactly the sort of meeting which can be extremely useful in advancing both global energy security and global economic well being.

The United States has greatly benefitted from this development of shale gas and other unconventional gas resources. As President Obama said in his State of the Union address this past January, we now estimate that the United States has a supply of natural gas which can last America for 100 years. In 2009, the United States became the world's leading producers of natural gas, to a significant degree because of the judicious use of new technologies that made once inaccessible deposits of natural gas able to be opened, tapped, and developed.

As a result of the development of unconventional natural gas, the United States may well begin exporting natural gas – LNG – by 2014 or 2015. Experts now speak of the United States being self sufficient in natural gas by 2035. Development of unconventional gas resources, resources which amount to over half the U.S. natural gas resources, will support over 600,000 jobs in the United States by the end of this decade.

I should join other speakers in pointing to the benefits in natural gas, a fuel that can back out others that are higher in GHG emissions and other pollutants when burned. Along these lines, there is a considerable amount of attention focused on the further development of natural gas as a fuel for transportation. There is also already a sense that the development of unconventional natural gas has rejuvenated the chemical industry in the United States with experts suggesting we could see a repeat of the 1920's when the discoveries of oil and natural gas in the United States produced all sorts of breakthroughs and innovations in the chemical sector.

However, we also need to bear in mind the important reality that the development of unconventional natural gas, like the development or realization of other industrial or extractive processes, needs to be done carefully with due attention to potential downsides.

In the United States, this has meant the government, civil society, and private sector enterprises paying attention to the environmental factors associated with the development of natural gas. It has meant particular attention being given to all the aspects of water usage associated with the development of unconventional gas. It has meant study of reports that certain seismic events may be associated with the tapping of shale gas. It has meant too attention and study of the impacts that development of shale or other unconventional natural gas can have on communities and a society. These impacts include the influx of people to areas that had previously been less populated or had been losing population.

It means realizing and taking into account the fact technologies for developing shale or other unconventional gas are not static, but rather are changing and we need to be thinking about how to take into account these technologies and engineering innovations. Awareness of these factors highlights that we need to be attentive to the various technical, environmental, and social aspects that accompany development of unconventional natural gas deposits.

In the United States we have been continuing to work to understand these aspects of the development of unconventional gas and to act upon what we have learned. With the Secretary of Energy's Advisory Board Subcommittee on Shale Gas Production, the U.S. has sought to develop – and to share – best practices from government, private, and public sectors. My colleague from Department of Energy, DAS Chris Smith, will be discussing the work of this group later on today.

Furthermore, the Environmental Protection Agency (EPA) is conducting an on- going study on hydraulic fracturing and its possible impacts on drinking water. Again, the United States is pursuing science-based studies to inform policy making as well as the discussions taking place among the public on unconventional gas.

We are engaging with others countries which may have significant shale or other unconventional gas. In doing so, we make a conscious effort to acquaint them with a much variety of views. Our sense is that there needs to be informed dialogue if we are to get out ahead of potential problems in unconventional gas development.

If are all talking about rules here today, I would like to urge that we look at the experience in the United States, including the need for the involvement, the engagement, of the various stake-holders. I would argue as well that just as the work will continue on the technical and engineering aspects of developing unconventional gas deposits, work will need to continue on the rules applying to how these deposits are developed. I would strongly urge that development of any regulations take into account sound science as a basis.

Our conviction is that if developed in a responsible, environmentally sound manner, unconventional gas can have a beneficial impact on the global energy outlook just as it has had in the United States.

Thank you. PRN: 2011/1951

## ***State's Cekuta on U.S.-Indonesia Energy Security, Natural Gas***

**06 February 2012**

U.S. Department of State

Remarks by Robert F. Cekuta

Deputy Assistant Secretary, Bureau of Economic, Energy and Business Affairs

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Jakarta, Indonesia

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### Introduction

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Ladies and gentlemen the reality, something that has surprised many Americans, is that in 2010 the United States produced more natural gas than any country in the world; more than all the countries of the Middle East combined. That one fact alone should give you an idea of the transformative effect of unconventional gas in my country. President Obama mentioned this transformation in his remarks to the Congress in the State of the Union last month. During the last decade, production of unconventional natural gas, which includes shale gas, tight gas, and coalbed methane, grew to reach more than 50 percent of annual U.S. natural gas output. Development of domestic shale gas resources - resources that were once thought technologically and economically unfeasible - has been made possible due to a combination of U.S. government support for research and development and private sector entrepreneurship. The story is not finished; even as we have overcome some of the hurdles to shale gas development, we continue to examine ways to avoid and mitigate environmental and other concerns. The message of this experience is clear, however: The global energy market is changing, and if the right steps are taken, there is a strong potential that responsible unconventional natural gas development will have a significant positive impact on the economic well-being and energy security of Indonesia, as well as of many other countries around the world.

The United States deeply welcomes your interest in examining the potential that unconventional natural gas resources can offer - potentials that need to be developed with attention to the legal, regulatory, environmental, and safety challenges these technologies can pose. The experience of the United States government, and the expertise gained by our private sector, may be useful to Indonesia as it considers going down this road, and we are happy to share it with you and with others who have these resources.

### Benefits: Increased Unconventional Gas Production in the U.S. and Globally

Backing up a bit, it is important to recognize explicitly that access to reliable, sustainable, and affordable energy is inextricably connected to increased economic development and a higher quality of life. For most countries, and especially ones as large and economically dynamic as the United States or Indonesia, there is no one single solution to meet the growing energy security concerns as demand for energy in our countries and around the world climbs. All options must be on the table, options that include hydrocarbons, renewables, and geothermal energy as well as increasing the efficiency in how industry, business, and private consumers use energy resources.

The United States Energy Information Administration projects that, due to increased domestic production, the U.S. will be almost completely self-sufficient in natural gas by 2035. Not that long ago, analysts maintained the U.S. would be importing 65% of our natural gas by 2035. We have granted export licenses already for two facilities to export liquefied natural gas (LNG) from the United States, exports which could begin as early as 2014 or 2015. If someone had suggested that just five years ago, they probably would have been laughed at.

Unconventional natural gas production has not only cut our reliance on external suppliers, but it has also meant job creation, a growing resurgence of the chemical industry, the potential to replace coal fired power plants with cleaner burning natural gas, increasing the use of natural gas for transportation, and even potentially employing gas-to-liquid processes that could most immediately offset the use of oil (the price of which is increasingly on the rise). The U.S. experience provides a possible analogue that allows us to speculate about new futures. One recent International Energy Agency analysis considers a scenario of a golden age of gas – in which gas use, on an oil equivalent basis, begins to approach that of oil by 2035. This development has massive consequences, especially in China and the Middle East, if diversification provides a chance to reduce both CO2 emissions and prices.

Let's talk about prices for a moment. Traditionally the price of natural gas has been linked to the prices consumers pay for oil. While there are world-wide prices for crude, there has been no single world-wide price for natural gas. Pipeline networks along with the proximity of traditional sources of natural gas played a key role in how gas was priced in a market.

Thus, today there are roughly three major markets for natural gas, in North America, Europe and Asia, and each has a different price for natural gas; prices that can differ significantly. In Asia, natural gas often costs three to four times what it does in the United States. Thanks to the development and production of unconventional gas, along with an extensive system for getting that gas to markets, the United States has the cheapest natural gas in the world; we currently pay less than \$3 per million btu, as compared to about \$9 mmbtu in Western Europe and up to \$15 mmbtu in Japan. If Indonesia were able to realize its unconventional gas potential, increased production could mean more gas available to meet Indonesia's growing energy needs without having to reduce the country's role as a leading natural gas exporter.

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#### Challenges to Unconventional Natural Gas Development

These steps should not be ignored; the global revolution in the production of unconventional gas is not without challenges. Take shale gas, for example. To realize fully the potential this resource holds, countries must take into account factors affecting the environment and public safety. These aspects must be given serious attention. As many of you no doubt know, there has been public discussion, particularly at the state and local levels in my country, about the safety and reliability of the technology and chemicals used in drilling for and extracting shale gas. Not just in response, but to stay ahead of the curve regarding the various aspects of shale gas production, the U. S. Secretary of Energy has established an Advisory Board for shale gas production to examine and improve the safety and environmental impact of shale gas development.

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Governments alone are not going provide the money needed; to develop these energy resources, the private sector will need to make – and will need to want to make – investments of money and know-how. Furthermore, as we have seen in the United States, industry can be a partner in efforts to counter the negative environmental impacts of unconventional natural gas development. These efforts include multi-well drilling pads, water recycling, the development of hydraulic-fracturing techniques that require less harmful chemicals, and the use of natural gas instead of diesel to fuel drilling equipment. Industry has also been willing on occasion to disclose the chemicals used in the hydraulic fracturing process, at times complying with government regulatory measures before they were established. All these steps resulted in a lower environmental footprint. Industry best practices do not replace sound regulations, but they demonstrate how government and industry can function as partners, not adversaries, in the development of new energy supplies.

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Conclusion

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Read more: <http://translations.state.gov/st/english/texttrans/2012/02/20120214164218su0.2904888.html#ixzz26iZziBbr>

## ***State Dept. on U.S.-India Cooperation on Energy, Climate***

13 June 2012

U.S. DEPARTMENT OF STATE

Office of the Spokesperson

June 13, 2012

FACT SHEET

U.S.-India Bilateral Cooperation on Energy and Climate Change

Recalling the 2009 U.S.-India MOU on clean energy, energy efficiency, energy security and climate change, Secretary of State Hillary Rodham Clinton and Minister of External Affairs S.M. Krishna reaffirmed their countries' strong commitment to work collaboratively in bilateral and multilateral fora to help ensure mutual energy security, combat global climate change and support the development of low-carbon economies that will create opportunities and fuel job growth in both countries. The two countries will continue to consult regularly on the future of global oil and gas markets, expanding sustainable energy access to support jobs and economic growth in both countries, collaborating in research and technology, and increasing U.S. exports of clean energy technology.

**Ensuring Mutual Energy Security:** Recognizing the implications of energy access for national security, both countries will continue their efforts to advance mutual energy security and ensure access to secure, reliable, and affordable energy supplies. Highlighting the role of natural gas as a bridge fuel toward a clean energy future, the United States will continue to support India's efforts as it seeks to increase natural gas as a share of its energy mix. Through the State Department's Unconventional Gas Technical Engagement Program, the United States also agreed to share U.S. experience and best practices in establishing the necessary environmental protection and regulatory framework as India

prepares for its first shale gas bid round, scheduled for 2013. Both countries recognize the need to work collaboratively through the IEA in the event of global supply disruptions. The United States welcomed India's leadership in the progress that has been made on the Turkmenistan-Afghanistan-Pakistan-India pipeline and agreed to support the project and other energy-related regional efforts through continued diplomatic engagement. To further support these efforts, the countries announced the next meeting of the Energy Dialogue in September 2012.

**PACE Implementation:** The U.S.-India Partnership to Advance Clean Energy (PACE) aims to accelerate the transition to low-carbon, energy secure economies through the research and deployment of clean energy technologies. Over the past two and a half years, PACE has mobilized more than \$1.7 billion in public and private resources for clean energy projects in India. A progress report on the U.S. government's PACE implementation efforts can be found here.

- In April 2012, both sides announced the first consortia awardees under the PACE Joint Clean Energy Research and Development Center. The joint U.S.-India consortia will dedicate efforts towards the discovery of transformational scientific and technological solutions in the areas of building efficiency, solar energy and advanced biofuels. The \$125 million effort in these three technology areas will involve over the work of more than 95 government, private and university entities over five years.

- The two sides will continue technical cooperation on renewable energy and energy efficiency deployment through the U.S. Department of Energy and its national labs, supporting work on solar resource assessment and mapping, solar technologies training for Indian financial institutions, improved wind resource estimates, data center and IT office building efficiency and Energy Conservation Building Code implementation at the local level.

- In June 2012, USAID launched a new five-year technical assistance program to accelerate India's transition to a high performing, low emissions, and energy secure economy, in partnership with the Ministry of Power and the Ministry of New and Renewable Energy. The \$20 million Partnership to Advance Clean Energy Deployment (PACE-D) contract will improve end-use energy efficiency, increase the supply of renewable energy; and adopt and accelerate deployment of cleaner fossil fuel technologies. The focus of the program will be on strengthening the enabling environment, increasing access to finance, and enhancing institutional and human capacity. It will also support the National Mission on Enhanced Energy Efficiency and the Jawaharlal Nehru National Solar Mission being implemented under the India's National Action Plan on Climate Change.

- Recognizing that economics and innovation will be important determinants of our future, both countries have leveraged the strengths of their private sectors to support clean energy deployment in India. The two countries launched the US-India Energy Cooperation Program (ECP) in late 2010 to leverage U.S. private sector interest in clean energy deployment. With support from the U.S. Trade and Development Agency (USTDA) the ECP has grown to 16 member companies working to build government-to-business technical and commercial partnerships and to mobilize funding for a growing portfolio of clean energy projects in India. USTDA sponsored the Clean Energy Exchange Program, a series of four reverse trade missions to the U.S. in the areas of smart grid expansion, solar power generation, unconventional gas, and green buildings. In project development USTDA has funded feasibility studies and pilot projects for smart grid implementation with utilities in India and private sector led solar power generation, and the countries were pleased to acknowledge during the Strategic Dialogue new USTDA commitments to sign agreements with Power Grid Corporation for two advanced smart transmission projects. Overall, USTDA support for infrastructure feasibility studies, reverse trade missions and other technical assistance in India has translated into at least \$1.7 billion in U.S. exports.

- The United States has established a Clean Energy Finance Center at the American Center in New Delhi, staffed with representatives from the U.S. Departments of Commerce, State, Energy, AID, USTDA, the Export-Import Bank and OPIC. These agencies have mobilized more than \$1.7 billion in public and private resources for clean energy projects in India. To date, OPIC has contributed to these efforts through \$740 million in financing and insurance for clean energy projects in India. Since January 2011, the Export-Import Bank has approved 9 solar energy financings in India with an aggregate value of over \$300 million, supporting 238 MW of generation. Additionally, there is another \$100M (60MWs) of solar energy transactions in India under consideration by the Board of Directors. The Ambassador's Clean Energy Pathfinders Fund will support the early planning, design, demonstration and replicable adoption of the commercial deployment of clean energy and energy efficiency technologies and practices in strategic sectors in India, and act as the venture arm of the Clean Energy Finance Center.

**Global Action through the Clean Energy Ministerial:** India will host the fourth meeting of the CEM (CEM4) in 2013. U.S.-India collaboration through the CEM takes place through five initiatives and includes a strong focus on equipment and appliance standards, awards, and incentive programs through the Super-efficient Equipment and Appliance Deployment (SEAD) initiative; energy management and cool roofs demonstration projects in India under the Global Superior Energy Performance Partnership; and the India portion of Lighting Asia, a program aimed at providing safe, clean and affordable off-grid lighting to two million rural Indians over the next three years. Enhancing bilateral efforts, CEM cooperation reflects the countries' commitment to addressing global energy and climate challenges.

**Sustained Commitment to Addressing Climate Change:** The United States and India expressed continued support for their high-level dialogue on climate change, which contributed to the successful outcomes in Durban. Both sides reaffirmed their intention to work together toward implementation of those outcomes, including negotiating the 2015 "Durban Platform" agreement under the UN Framework Convention. Further, both countries emphasized the importance of the international community working together in the International Civil Aviation Organization (ICAO) on effective measures to reduce global aviation emissions. The two countries underscored their commitment to collaborate on issues such as clean technology, adaptation, and transparency of reporting on national actions and emissions. The United States and India successfully implemented the first bilateral collaborative project to obtain continuous measurements of atmospheric state, energy budgets, clouds, and aerosol properties within India, and provided critical data for improving climate models.

The United States and India also reiterated their commitment to cooperation to address short-lived climate pollutants (SLCPs), which are responsible for a significant share of near-term warming and cause millions of premature deaths and millions of tons of crop losses on a global scale every year. Bilateral collaboration on SLCPs includes a joint U.S.-India task force report on climate-friendly alternatives to hydrofluorocarbons (HFCs), extensive collaboration with India's Oil and Natural Gas Corporation on methane abatement from oil & gas operations through the Global Methane Initiative, and information exchange on the countries' respective black carbon research programs.

**Support for Reducing Emissions from Deforestation and Forest Degradation (REDD+).** The countries also agreed to continue bilateral collaboration under existing frameworks on climate adaptation and reduced emissions from deforestation and forest degradation (REDD+). In the summer of 2012, USAID will award the new five-year, \$15 million Partnership for Land Use Science (Forest-PLUS) technical assistance program. The program was designed and developed in partnership with the Ministry of Environment and Forests (MOEF) to directly support the Government of India's Green India Mission. The program aims to reduce emissions and enhance carbon sequestration through India's forests by taking REDD+ actions to scale. USAID and the U.S. Forest Service will also work with the MOEF in carbon inventory and monitoring, and to pilot and test carbon estimation methodologies.

## *Remarks to the American Jewish Committee's National Energy Committee*

**Robert F. Cekuta**

Deputy Assistant Secretary, Bureau of Economic, Energy and Business Affairs

**Washington, DC, May 2, 2012**

Thank you, Henry, and let me thank the American Jewish Committee (AJC) very much as well for organizing this event and for offering this opportunity to talk with you about improving America's energy security.

Since President Obama took office, U.S. domestic oil and gas production has increased each year. Our reliance on foreign oil has decreased, and that trend is expected to continue thanks in part to the historic fuel economy standards established by President Obama, effectively doubling the efficiency of the cars we drive and saving consumers thousands at the pump. In 2009, the United States produced 5.3 mmbd. Current U.S. crude production is 6.1mmbd, a figure which is equal to the production we saw at the close of 2011, when U.S. crude oil production reached its highest level since 2003. The 6.1 mmbd U.S. production figure is also an increase over 2010 levels by an estimated 120,000 barrels per day.

Another important fact: U.S. dependence on imported oil fell below 50% in 2010 for the first time in more than a decade. We have seen U.S. oil imports dropping since 2005, and net imports as a share of total consumption fell from 57 percent in 2008 to 45 percent in 2011 – the lowest level since 1995. Moreover, U.S. natural gas production grew by more than 7 percent in 2011 – the largest year-over-year volumetric increase in history – and easily eclipsed the previous production record set in 1973.

For my part this afternoon, I would like to sketch out steps which the United States is taking today to reduce these imports and to look at these steps as part of an overall effort to boost the United States' energy security and economic well-being. After these remarks, I hope we can have some time for questions and discussions on this important foreign policy issue.

Let me first of all note something Secretary Clinton has said: "You can't talk about our economy or foreign policy without talking about energy."

Putting this statement into practice, the Secretary, as part of the Quadrennial Diplomacy and Development Review, established a Bureau of Energy Resources in October 2011. The Bureau is designed to unite U.S. diplomatic and programmatic efforts to build sustainable, transparent, and predictable international markets for conventional and unconventional hydrocarbons, civilian nuclear power, and electricity, to promote renewable energy, energy efficiency, and to increase access to energy and encourage good governance and transparency in the energy sector. All of these factors advance our national security interests, and those of our allies, advance our environmental goals, and advance a strong national and global economy.

The Bureau of Energy Resources takes a broad view of what is integral to U.S. and global energy security. Doing so means focusing on three areas. The first is what we have traditionally thought of as energy security, going back to the days of the Arab oil embargo and before: the flow of traditional hydrocarbons, in particular oil and gas. Hydrocarbons today still make up 85% of the world's fuel resources. We continue to use our diplomacy to ensure that access to oil, gas, and coal is adequate, reliable, and affordable. However, we need to be aware even this

traditional aspect of energy security is changing as new markets and new technologies alter the traditional energy landscape. For example emerging market economies such as China and India are driving tremendous growth in the world's demand for resources. New technologies – shale oil in North Dakota or the revolution in unconventional gas – and new producers, such as Brazil or countries in East and West Africa, are affecting the supply picture. The realities of climate change are also a factor.

The second focus of the Bureau of Energy Resources and its work to promote energy security is on the energy of the future. The focus here is on the opportunities that clean and renewable energy offer, whether to the United States and other established industrialized economies looking to advance their energy security and to meet the challenges posed by the realities of rising CO2 emissions and the concerns about climate change, or to other countries looking to develop or to cut their bills for imported oil.

The President has frequently cited the opportunities and benefits these technologies offer. American companies are world leaders in wind, solar, hydro, power transmission, efficient generation, and smart grids. The scale of this market is huge. The International Energy Agency estimates that the world will see \$5.9 trillion – yes trillion with a "t" – in new investments in hydroelectric and other renewable power between 2011 and 2035. Those numbers come on top of the \$2.8 trillion that will be invested in coal-, gas-, and oil-fired power plants around the world during those years, and \$1.1 trillion in nuclear power. This shift to renewable power is market- driven and is unprecedented in history.

In this focus on the energy of the future, an important source will be boosting energy efficiency. Raising Fuel Economy Standards, for example, is part of this effort to use less energy, to use energy more wisely. Taken together, the Obama Administration's standards for cars and light-duty trucks span model years 2011 to 2025 and represent the first meaningful update in over three decades. Under this program, average fuel

efficiency will reach a performance equivalent of 54.5 miles per gallon by 2025 and will save consumers \$1.7 trillion at the pump over time – or roughly \$8,200 per vehicle – and reduce oil consumption by 2.2 million barrels a day by 2025.

There is a third focus in addition to the energy world that we have long known and the energy world of the future – that is the access to energy for the 1.3 billion people around the world today who do not have it. We are already seeing the effects of expanding access in those who only a few years ago had no access to energy in Brazil, China, India, or the other rapidly industrializing economies have had on global energy markets and the expectations regarding supply and demand.

Energy is an essential component for development. We often forget this, but we can see this in how and where factories and businesses first developed in the United States. The first textile and other mills were established along the Merrimack and other rivers of the Northeast because they were the source for powering machinery in the late 18th/early 19th centuries. The need for energy is core today for manufacturing, commerce, and our daily lives, but in today's world, energy is also essential for providing health care – cold chains for vaccines or basic diagnostic equipment cannot work without electricity – or for the communications sector and how this shapes even the most basic of human activities. Think about the use of cellphones in

countries around the world for fishermen to identify which port to put in with the fish they have caught or where the best markets are for their produce.

But a country being a source for energy, for oil and gas, can also bring challenges, especially when the proceeds from the oil and gas sector are not used for the benefit of a country's population.

The energy sector all too often provides great opportunities for mismanagement and corruption, and has fueled bad behavior in too many countries to name. The United States continues to be a leader in transparency, accountability, and good governance in the energy sector, and in promotion of these important values around the world. As Secretary Clinton underscored in recent testimony, the State Department will use its full diplomatic capabilities to encourage transparency in the extractive industries around the world.

To that end, as part of our overall efforts to focus attention on good governance in this sector, we have significantly increased our engagement on one critical aspect of good governance – transparency. In March I joined the EITI board on behalf of the U.S. government, elevating our engagement with that institution. The EITI has come so far in just a few short years of existence, and is quickly becoming the global standard for transparency in the extractive sector. It is providing a means for people in the countries that have signed up to see how much money their governments have earned from oil or other extractive industries. With this knowledge, the people in these countries can hold authorities accountable, and they can utilize the resulting transparency to help fight and prevent corruption.

President Obama announced last year the United States would pursue becoming an EITI compliant country, the second industrialized country after Norway to do so. However, as you also know, EITI is not the only extractive sector transparency effort the United States is undertaking. The Cardin-Lugar Amendment to the Dodd-Frank Wall Street Reform and Consumer Protection Act requires companies that file reports with the U.S. Securities and Exchange Commission to disclose payments they make to foreign governments in the extractives sector. When the final rules are issued, we will work closely with our embassies around the world to explain to companies and governments how this law will be implemented and what it means for them. We will also engage with the European Union and others who we hope will consider similar rules. Our goal is to create a common platform for transparency across the globe.

The State Department is also working hard to help countries that are developing their energy sectors do so safely, responsibly, and accountably in all aspects. Better technology, innovative approaches, and changing economics have brought the potential for oil and gas development to new countries and regions of the world. This expansion has the potential to bring tremendous benefit to those countries, as well as to global energy markets. In order to compete in the global economy, countries – or rather the companies, entrepreneurs, academics, NGOs and governments of those countries – must understand the resources they have and how they can be exploited responsibly to the maximum benefit of their population. The State Department's Energy Governance and Capacity Initiative (EGCI) works with emerging conventional oil and gas producers by providing technical advice and engagement on a range of

issues related to energy sector management, including legal and regulatory reform, technical capacity development, and revenue management.

This initiative supports a broad range of U.S. foreign policy objectives, including ensuring the security of global oil and gas supplies, supporting clean energy goals by maximizing the efficiency of oil and gas resource development, furthering political and economic stability in developing countries, promoting democracy and human rights, and combating corruption.

Thus, the State Department and the U.S. government as a whole is pursuing what President Obama has repeatedly stated is necessary: an all-of-the-above approach to American energy security. This all-of-the-above strategy aims at reducing our reliance on foreign oil, saving families and businesses money at the pump, and positioning the United States as the global leader in clean energy.

The United States will keep relying on responsibly produced oil and gas in the near future, but over the long term, the Obama administration is committed to a policy that allows us to transition from oil towards cleaner alternatives and energy efficiency. While there are no silver bullets

for meeting our energy needs, we'll continue to build on the progress we've made over the past three years. Through a sustained, all-of-the-above approach to American energy we will continue to reduce our reliance on foreign oil, and create an economy that is sound and sustainable.

The Administration has made the largest investment in clean energy in history and the United States has nearly doubled renewable energy generation since 2008. Last year, according to industry experts, the United States reclaimed the title as the world's leading investor in clean energy technologies. Through initiatives such as the 1603 Treasury program, which partially reimburses the cost of renewable energy installations, and the Production Tax Credit (PTC), which provides a tax credit for the production of utility-scale renewable energy production, more specifically providing an income tax credit of 2.2 cents per kilowatt-hour for the production of electricity from utility-scale turbines and 1.0 cent per kilowatt-hour for bioenergy, geothermal, and efficiency upgrades to existing facilities during the first 10 years of operation, the Administration has dedicated itself to encouraging the growing clean energy economy. In addition to these tax programs, the Department of Interior has worked to make public lands accessible for renewable energy projects as well as working to improve the safety and reliability of offshore oil and gas production.

It is important to note as well that building on the \$4.5 billion in Recovery Act investments in smart grid technology demonstrations and deployment, the Administration published a smart grid policy framework in June 2011 and has invested more than \$150 million in smart meters, grid sensors, control systems, and other smart grid technologies in rural America.

Moreover, since October 2009, the Department of Energy (DOE) and the Department of Housing and Urban Development (HUD) have completed energy upgrades in more than one million homes. The Department of Energy's Weatherization Assistance Program alone has completed energy efficiency upgrades in approximately 860,000 homes across the country. On average, these upgrades save American families more than \$400 on their heating and cooling bills in the first year alone.

Let me conclude by saying that the goals and initiatives I have discussed are all part of the U.S. government's goals of increasing global energy security and promoting economic prosperity. The steps are not just for governments; citizens and the private sector have essential roles in building a secure energy future as well. In some cases, the steps may seem mind boggling. As I noted earlier, the IEA forecasts that the world will see \$5.9 trillion in new investments in hydroelectric and other renewable power, \$2.8 trillion in coal, gas and oil-fired plants, and \$1.1 trillion in nuclear power between 2011 and 2025. But let me also note, there are important steps we can take that do not have such huge price tags. Investing in technologies such as energy-saving light bulbs and other appliances can also help in our efforts. So can investments in new, more energy efficient technologies. The bottom-line is that energy security remains an important and basic concern, something we can all take steps to help achieve.

Thank you very much.

## ***Ambassador Morningstar on U.S. Eurasian Energy Policy***

**10 April 2012**

U.S. Department of State

Remarks by Richard Morningstar

Special Envoy for Eurasian Energy

The Economist Conference

Athens, Greece

March 28, 2012

Remarks at The Economist's Investment Energy Summit

Thank you for inviting me to speak at The Economist's Investment Energy Summit in Athens. I will jump right into the details, as I know we all want to eat.

Let me just briefly outline our overall policy with respect to Eurasia, and then I'll get into some of the specifics, particularly relating to the Southern Corridor and the Eastern Mediterranean.

First, we encourage the development of new oil and gas resources while at the same time promoting efficiency and conservation in the use of all of our energy resources. Because there is a world market for oil, new production contributes to meeting growing demand anywhere in the world, including in the United States. When we're talking about natural gas in this neighborhood, whether it's the Caspian region, the Mediterranean, Iraq, Russia or Central Asia, it's unlikely that any of that gas is ever going to reach the United States. But it's still important, because it's going to add to the international gas supply. Additional supply in one place naturally frees up supply in another, and as the market for liquefied natural gas continues to grow, we can start to think about gas moving around markets in much the same way oil does. **One item that may not be for debate today, but it's going to be interesting looking down the road several years, is whether fixed pipelines become somewhat archaic, given the ultimate development of liquefied natural gas and unconventional gas.** I think there will always be fixed pipeline, but there is going to have to be more flexibility in take or pay contracts.

Second, we want to assist Europe in its quest for energy security. One might ask, why does the United States care about European energy security? You are 4,000 miles away. Europe is our partner in any number of different areas. The U.S. and Europe have the world's largest trade and investment relationship. We have an interest in an economically strong Europe. Europe has a major interest in an economically strong United States. And energy security is a major factor in the economy of any country. And in spite of all the difficulties we're facing in the world today, we can't forget the relationship between energy security and a strong economy.

Of course, Europe is composed of many different states, and energy security is a more pressing issue to some than others. Some countries in Europe do not have a diverse energy mix and depend largely or, even in a few cases, entirely on a single supplier and transport group. So, our aim is to encourage the development of a balanced and diverse energy strategy with multiple energy sources, with multiple routes to market – a competitive, efficient market which offers the best prices for consumers. We say this for all countries. **It's not just Europe. It's for the United States; it's for Russia. For example, if Europe wants to diversify its energy supply, Russia should be diversifying its consumers as well.**

The third component of our policy is our desire to help Caspian, Central Asian and Middle Eastern - and Eastern Mediterranean - countries find new routes to market for their hydrocarbons. We want to help foster economic growth and prosperity in all of these countries. By expanding export routes, they can increase competition for their resources, demand a fair price and create strong links to the global economy. And most of all, I think maybe the most important part of this prong of our strategy is that we are not in a zero-sum game with Russia. We only care that these countries should be able to make their own choices as to how they deal with their energy resources.

While by no means our only interest, the Southern Corridor is a key component of our Eurasian Energy policy. The Obama administration strongly supports the establishment of the Southern Corridor to bring natural gas to Europe via Turkey from the Caspian and potentially other sources beyond Europe's southeastern frontiers. Gas from Azerbaijan's Shah Deniz (SD) field represents the first significant volumes available to supply the Southern Corridor. Development of the second phase of Shah Deniz is well under way. The Shah Deniz consortium recently narrowed the field to three potential pipelines a scalable Nabucco, SEEP, and TAP. Nabucco West is a modified version of the Nabucco project which would be built to accommodate the current gas production realities of SD II, while also having the capabilities to expand when more gas becomes available in the future. TAP would bring Caspian gas through Greece, Albania, and Italy via the Adriatic Sea. They're all vying for the right to ship Shah Deniz gas into the EU. I recognize that there are issues. BP has also suggested the SEEP pipeline, which stands for Southeastern Europe Pipeline. This possibility would provide for a capillary approach, combining existing pipelines and new construction, throughout the Balkans and Eastern Europe.

We support the Southern Corridor, which will consist of one or more pipeline projects that are commercially viable and strategically significant. A full Nabucco would be a highly desirable political and strategic option, but as with any pipeline it must be able to demonstrate commercial viability. There will ultimately be large amounts of gas to ship through Azerbaijan, Georgia, and Turkey to Europe. We support any pipeline through the Southern Corridor that provides gas to the most vulnerable countries in Europe and that includes concrete, written guarantees that the pipeline will be expanded as more gas becomes available. Additional gas will become available; it's just a question of when. If TAP is ultimately selected, it is generally accepted that it would have to be done in conjunction with an interconnector to SE Europe.

I would like to make one more point regarding Europe. The most important thing that Europe can do – more so than any pipeline or any single gas field - is what Europe does itself with respect to liberalizing its market, with respect to creating interconnectors between countries, by looking at alternative sources of energy, whether it be shale or renewables, by taking advantage of opportunities to improve energy efficiency, by increasing LNG facilities, by increasing storage facilities, doing all the things that are necessary for Europe to have its own balanced and diverse energy policy.

Moving beyond the Southern Corridor, recent, large finds in the Eastern Mediterranean are very important, new components for diversification and energy security for countries in the region and elsewhere in Europe. These developments are complementary to the Southern Corridor. With these valuable finds come some serious political considerations and risks, as well as a variety of legal issues. Yet, at the same time, there is much to gain for all stakeholders.

As to Cyprus, as we have repeatedly said, the United States recognizes Cyprus' right to drill in its offshore zone. We also believe American companies bring unparalleled world-class experience in offshore exploration, and we support their bids to do work in this region, as we do in other regions. As we have also said, we believe that any potential revenue from future oil and gas resources in Cyprus should be equitably shared between both communities. Our key message to both the Republic of Cyprus and Turkey reflects our long-standing policy, which is to support the Cypriot-led efforts under UN auspices to reunify the island into a bizonal, bicomunal federation and encouraging the two sides to come to a peaceful settlement - this issue could help us get there. This would allow all of Cyprus and other countries to share in the benefits of the Eastern Mediterranean.

In addition, Israel's significant offshore natural gas finds, including the Tamar Leviathan field – one of the largest offshore gas finds of the past decade – have put Israel on the hydrocarbon map and initiated significant changes in Israel's energy economy and investment and energy policies. The gas will significantly enhance Israel's energy security, and Israel is presently examining export potential, including LNG.

Greece also is working to identify potential hydrocarbons for exploitation. The Greek government has announced tenders for seismic studies and hydrocarbon exploration onshore, in the Ionian Sea, and south of the island of Crete.

Having said all of this – the issues in the Eastern Mediterranean go beyond Cyprus, go beyond Israel, and affect the whole region. There are a myriad of legal issues, including law of the sea questions, and political issues that will have to be resolved. At the risk of oversimplifying, I would make the following conclusions. Gas in the Eastern Mediterranean is a good thing. It helps to create diversification and helps Europe, but most of all it helps the region. All countries from Egypt and all the way around the Mediterranean to Turkey and Greece will benefit. There are multiple pots of gold in the Eastern Mediterranean. If equitable solutions are found, all will gain. If not, nobody will reap the full benefits.

Voices should be kept low; the parties involved should look reasonably at their interests and talk to each other so that solution can be found and all can benefit.

Thank you.

Read more: <http://translations.state.gov/st/english/texttrans/2012/04/201204103596.html#ixzz26icPPPra>

## ***Joint Statement on the U.S.-China Strategic and Economic Dialogue Outcomes of the Strategic Track May 3-4, 2012***

Office of the Spokesperson

**Washington, DC, May 4, 2012**

At the Fourth Round of the U.S.-China Strategic and Economic Dialogue (S&ED) May 3-4, 2012, Secretary of State Hillary Rodham Clinton, special representative of President Barack Obama, and State Councilor Dai Bingguo, special representative of President Hu Jintao, chaired the Strategic Track, which included participation from senior officials from across both governments. The two sides held in-depth discussions on major bilateral, regional, and global issues and reviewed progress over the four rounds of the S&ED in deepening strategic trust and advancing President Barack Obama and President Hu Jintao's shared vision for building a U.S.-China cooperative partnership based on mutual respect and mutual benefit. The dialogue on the Strategic Track produced the following specific outcomes and areas for further cooperation. The United States and China:

#### I. Promoting High-Level Exchanges

1. Reviewed President Barack Obama's meeting with President Hu Jintao on the margins of the Nuclear Security Summit in Seoul, the successful reciprocal visits of Vice President Joseph Biden and Vice President Xi Jinping, and other high-level engagement since the last round of the S&ED. The two sides noted that upcoming meetings such as the G-20 Summit and the East Asia Summit provide further opportunities for high-level engagement.

#### II. Bilateral Dialogues and Consultations

2. Held the second round of the China-US Strategic Security Dialogue (SSD) and had candid and in-depth exchange of views on issues relating to the strategic and comprehensive security of the two countries. The dialogue was co-chaired by Deputy Secretary of State William Burns on the U.S. side and Vice Foreign Minister Zhang Zhijun on the Chinese side, who were joined by Acting Undersecretary of Defense James Miller, Deputy Chief of the General Staff of the PLA Ma Xiaotian and others from the relevant departments of the two countries. The two sides commented positively on the role of the SSD and decided to continue working together to develop the mechanism to increase mutual trust and manage differences between the two countries and look forward to holding another round next year.

3. Decided to hold a fourth round of the U.S.-China Asia-Pacific Consultations in the second half of 2012. Acknowledging our common interests and challenges in the region and shared goal of maintaining peace, stability, and prosperity, the two sides decided to further implement the program to carry out multilateral cooperation in such areas as food security, urban search and rescue, and disaster relief capacity building in the Asia-Pacific region reached by Secretary of State Hillary Clinton and Foreign Minister Yang Jiechi at the ASEAN Regional Forum in 2011.

4. Affirmed their commitment to continuing constructive bilateral dialogue on human rights on the basis of equality and mutual respect and decided to hold the bilateral Human Rights Dialogue in Washington, D.C., in summer 2012.

5. Noted the conclusion of the bilateral Legal Experts Dialogue in Beijing in April 2012 and confirmed their intention to hold the next round of the Legal Experts Dialogue in the United States in 2013.

6. Held the Policy Planning talks on the margins of the fourth round of the S&ED. The two sides decided to hold a U.S.-China consultation on Middle East affairs at a time and place to be decided. The two sides further decided to hold the next round of sub-dialogues on Policy Planning, Africa, Latin America, South Asia, and Central Asia on a regular basis and to enhance bilateral coordination and cooperation on regional and international issues.

7. Reaffirmed their intention to enhance communication and cooperation on major international security and other nonproliferation issues on the basis of mutual respect, equality, and mutual benefit. The two sides decided to hold the next rounds of the Security Dialogue and the Nonproliferation Dialogue on dates to be decided by both sides.

8. Decided to work to deepen and improve law enforcement cooperation to address issues of mutual concern. Both sides welcome the efforts of the U.S.-China Joint Liaison Group on Law Enforcement Cooperation (JLG) to achieve these objectives and will seek to arrange reciprocal visits to the Federal Law Enforcement Training Center and Public Security University, as well as other agencies and institutions, to improve information exchange. Both countries have decided to hold the tenth session of the JLG in the fall in China, and prioritize cooperation in intellectual property enforcement, fugitives, human smuggling, repatriation, cybercrime, counternarcotics, anti-corruption, legal assistance, and retrieving illicit funds.

9. Affirmed their support for the establishment of the U.S.-China Maritime Safety Dialogue Mechanism between the U.S. Coast Guard and the China Maritime Safety Administration and to hold the first dialogue this fall in China, in conjunction with a visit by U.S. Coast Guard Commandant Admiral Robert J. Papp, Jr.

10. Noted that the fourteenth U.S. - China Joint Commission meeting on Science and Technology Cooperation (JCM) was held in Beijing May 1, 2012. Dr. John P. Holdren, Assistant to the President for Science and Technology and Director of the White House Office of Science and Technology Policy and Dr. Wan Gang, Minister of Science and Technology of China co-chaired the meeting. Representatives from government science and technology ministries and agencies and from research institutes in energy, measurement science, agriculture, environment, health, and basic research attended the meeting. The two sides reviewed collaborative programs under the U.S.-China Agreement on Cooperation in Science and Technology, discussed future efforts, outlined areas for cooperation, and developed a work plan.

- Signed the Protocol between USDA and the Ministry of Science and Technology for Cooperation on Agricultural Flagship Projects.
  - Signed Memorandum of Understanding between the National Science Foundation of the United States (NSF) and the Ministry of Science and Technology of People's Republic of China (MOST) on the establishment of a partnership.
11. Decided to hold the third Advanced Biofuels Forum, the third Renewable Energy Industry Forum, and the twelfth Oil and Gas Industry Forum in due course.
  12. Noted the results of the Joint Coordinating Committee Meeting between the U.S. Department of Energy (DOE) and the Chinese Academy of Sciences in April 2012. The U.S. Department of Energy and Chinese Academy of Sciences met in April and discussed ongoing and potential new collaborative activities. The two sides decided to continue the successful ongoing collaborations in high-energy physics, nuclear physics, and fusion energy sciences, and explore potential new mutually beneficial collaborations in basic energy sciences including chemistry, materials research, and light source research and development.
  13. Decided that under the U.S.-China Bilateral Forum on Combating Illegal Logging and Associated Trade, the two governments are cooperating and undertaking concrete activities to fulfill the objectives of the associated Memorandum of Understanding, including through exchange of information, the research program on wood legality verification options and strategies for U.S.-China trade in forest products and encouraging participation of the private sector and civil society in the Forum.
  14. Announced that the U.S.-China Joint Working Group on Environmental Research is to be held in the United States in June 2012 by the U.S. Environmental Protection Agency and China's Ministry of Science and Technology.
  15. Decided to hold the tenth session of the Joint Working Group of U.S.-China Agricultural Science and Technology Cooperation in Shandong province in August 2012.
  16. Decided to hold the third round of the Dialogue on Law of the Sea and Polar Issues in Beijing, May 22-23, 2012.

### III. Addressing Regional and Global Challenges

17. Decided to enhance communication and coordination on regional and global issues to jointly address common challenges and to safeguard peace and stability, in particular using multilateral mechanisms such as peacekeeping operations. The two sides held in-depth discussions on the Korean peninsula, the Iranian nuclear issue, and Syria. The two sides reiterated their understandings on the Korean peninsula and the Iranian nuclear issue as expressed in the 2011 U.S.-China Joint Statement.
18. Decided to work together, including exploring ways of cooperation, to encourage the international community to assist developing countries, including in Africa, Latin America, and Asia, to support poverty reduction, development, regional integration, and food security and to contribute to inclusive and sustainable economic growth. Regarding joint development projects in third countries, the two sides could first conduct joint feasibility studies on programs and projects agreed and selected by all parties, including the host country, in the fields of agriculture, health, and human resources.
19. Reaffirmed the importance of encouraging a peaceful relationship and a productive dialogue between the governments of Sudan and South Sudan on all bilateral issues, including settlement of the remaining post Comprehensive Peace Agreement issues, decided to maintain communication and consultation on the issue concerning Sudan and South Sudan, coordinate actions on the basis of respecting related parties' concerns, support the peaceful coexistence of the two countries and safeguard safety and stability in the region, including through full implementation of the UN peacekeeping missions there.

### IV. Enhancing U.S.-China Bilateral Cooperation

20. Welcomed the continued deepening of subnational relations as envisioned in the Memorandum of Understanding Concerning the Establishment of the U.S.-China Governors Forum to Promote Sub-National Cooperation. Highlighted the success since the last S&ED of the inaugural U.S.-China Governors Forum held in Salt Lake City, the second dialogue held in Beijing, and the Governors Roundtable held in Los Angeles on the margins of Vice President Xi Jinping's official visit.
21. Decided to hold specific talks on the issuance of five-year multiple entry visas for businessmen, tourists, students, and other agreed-upon visa classes.
22. Reaffirmed their support for the National China Garden Foundation's efforts to construct a China Garden at the U.S. National Arboretum, expecting the Foundation to complete an Architect-Engineering Feasibility Study by the second half of 2012, develop the final design by the end of 2012, and begin construction in 2013.
23. Decided to continue to implement the Memorandum of Understanding between the Department of Homeland Security, U.S. Customs and Border Protection and the General Administration of Customs of the People's Republic of China Concerning Bilateral Cooperation on Supply

Chain Security and Facilitation and the Action Plan. Three Customs-Trade Partnership Against Terrorism (C-TPAT) joint validations are to be conducted this year in China, which will further U.S.-China Customs cooperation on supply chain security and facilitation. In the meantime, the comparative studies of "Authorized Economic Operator (AEO)" systems will be carried out in conjunction with the joint validations in order to achieve the goal of mutual recognition of AEO as early as possible.

24. Reiterated commitments to combating illegal trafficking of nuclear and other radioactive materials. The Radiation Detection Training Center for China Customs jointly established by both sides is to be put into use in the second half of this year.

25. Decided to sign the Letter of Intent between the U.S. Customs and Border Protection and the General Administration of Customs of the People's Republic of China and on a Joint Training Program designed to facilitate the exchange of information and personnel, undertake joint operational exercises, and strengthen customs-to-customs cooperation to identify and interdict illegitimate and illicit materials traveling via air and maritime cargo.

26. Decided to strengthen communication between the U.S. Coast Guard and China's Ministry of Transport to improve the coordination of search and rescue operations at sea, consider a possible joint exercise to be conducted in Hawaii in September between the U.S. Coast Guard and a vessel from the China Maritime Safety Administration.

27. Welcomed the exchanges between senior law enforcement officials to advance the practical development of bilateral law enforcement cooperation, including the Director of the Office of National Drug Control Policy R. Gil Kerlikowske's visit to China in June 2012.

28. Reaffirmed commitment to cooperate on transportation safety and security through study tours arranged by the U.S. Trade and Development Agency on maritime safety and operations; transportation safety and disaster rescue coordination; and an eighth phase of aviation executive management training under the U.S.-China Aviation Cooperation Program.

#### V. Cooperation on Climate Change, Energy, Environment, Science, and Technology

1. Decided to continue the climate change policy dialogue and pragmatic cooperation. Decided to work together constructively to implement the outcomes reached in Cancun and Durban and to achieve a positive outcome at the UN Climate Conference in Doha, Qatar. Decided to further strengthen the mechanisms for bilateral climate change policy dialogues and related cooperation, strengthen communications at various levels, and exchange views on issues under international climate change negotiations and on domestic policies.

30. Will strengthen cooperation under the Global Alliance for Clean Cookstoves to help the Alliance reach its ambitious goals for the large-scale global adoption of clean stoves and fuels for cooking, and thereby realize the multiple goals of improved health, improved livelihoods, women's empowerment, energy conservation, and environmental protection. China announced its decision to join the Global Alliance for Clean Cookstoves.

31. Welcomed the progress made under the U.S.-China Ten-Year Framework (TYF) on Energy and Environment Cooperation. At the 8th Joint Working Group Meeting of the TYF held in April this year, both sides decided to continue to strengthen cooperation in the action plans under the TYF, including clean water, clean air, clean and efficient transportation, clean and efficient electricity, nature reserves/protected areas, wetlands cooperation, and energy efficiency, and to further implement the EcoPartnerships program. Both sides will promote the "sister lake" partnership program and launch joint study on groundwater pollution prevention and control; co-host a Regional Air Quality Management Conference, implement pilot work on air quality improvement, and engage in technological exchanges on pollutants control; implement the livable transportation project, and deepen cooperation on aviation bio-fuels, energy conservation and emissions reduction in the aviation sector, and vehicle pollution prevention and control; implement the Memorandum of Understanding between the NEA and FERC and hold the U.S.-China Smart Grid Forum in Shenzhen in 2012; implement projects and activities of Annex 11 to the Protocol on Cooperation and Exchanges in the Field of Conservation of Nature between the U.S. and China; facilitate the joint publication of a special issue of the journal "Wetlands," and hold the third U.S.-China Energy Efficiency Forum in Beijing in June 2012.

32. Held an EcoPartnerships signing ceremony during the 4th S&ED and announced the expansion of the EcoPartnerships program by admitting five new EcoPartnerships. By bringing together local governments, research institutions, universities and corporations from the U.S. and China, EcoPartnerships spur innovation, investment and cooperation on energy and environmental issues in both countries. Critical investment by and pragmatic cooperation among EcoPartners at the subnational level translate the strategic goals of the action plans under the TYF into concrete actions.

33. Reaffirmed the commitments made in the U.S.-China Joint Statement on Energy Security Cooperation, which noted the two countries, as the world's largest producers and consumers of energy, share common interests and responsibilities to ensure energy security and face common challenges. The two sides decided to strengthen dialogue and planning in these areas. The United States and China pledged to strengthen cooperation and increased dialogue and exchange of information in several areas including stabilizing international energy markets, emergency responses, ensuring diversified energy supply, and a rational and efficient use of energy.

34. Reaffirmed the commitments made in the U.S.-China Memorandum of Understanding for Cooperation in Establishing a Center for Excellence in Nuclear Security to strengthen cooperation in nuclear non-proliferation, nuclear security, and combating nuclear terrorism. The

two countries decided to continue supporting the cooperation on the project to establish a Center of Excellence, and the two countries decided to strengthen the cooperation in the field of radioactive waste management.

35. Reaffirmed the importance of ensuring the continued safe operation of their respective nuclear power facilities and of sharing their nuclear safety expertise and experience; reaffirmed their support for the Action Plan on Nuclear Safety approved by the IAEA Board of Governors and endorsed by the IAEA General Conference in 2011; and reaffirmed the importance of establishing a global nuclear liability regime. The two sides decided to cooperate in the field of nuclear liability regime.

**36. Welcomed the recent completion of the first U.S.-China shale gas assessment and decided to build on recent progress and strengthen future cooperation concerning shale gas development and regulatory and environmental frameworks. The two sides decided to work within the established Memorandum of Cooperation on Shale Gas Resources between the State Department and the National Energy Administration to enhance dialogue on the commercial environment and to further encourage responsible production in both countries to enhance global energy security.**

37. Decided to participate as partners in the Asia-Pacific Energy Regulatory Forum (APERF) to facilitate the sharing of information on energy regulatory and policy practice and experience in the Asia-Pacific region. China is to attend the U.S.-hosted APERF meeting in August 2012 in Washington, D.C., where participants plan to discuss (1) the transition to a low-carbon economy, (2) energy infrastructure and market regulatory arrangements, and (3) competition reform.

38. Welcomed the furthering of bilateral cooperation on clean energy, including the extension of the U.S.-China Clean Energy Exchange Program, under the action plan between the U.S. Trade and Development Agency (USTDA) and the National Energy Administration.

39. Announced that U.S.-China Clean Energy Research Center (CERC) has held an IPR workshop in China March 5-7, 2012, and will hold one another IPR workshop in the United States within a year. CERC will conduct mid-term assessment on the work progress of its industry-academia-research consortia this year. The United States and China announce the completion of the first U.S.-China Clean Energy Research Center Annual Report.

40. Welcomed the third year of progress under the U.S.-China Energy Cooperation Program, announced during the visit of President Obama to China in November 2009. Under this program, the two sides held consultations and selected sites for implementation of a joint pilot project on distributed energy and combined heat and power. The two countries decided to work together to organize workshops, study tours, and other activities covering energy policy.

41. Announced USTDA consideration for two studies to support mutually beneficial cooperation in the areas of 1) an integrated smart grid communication model; and 2) denitrification of power plant emissions. Considering that China has made related research deployment in the aforementioned areas, the two sides decided to conduct mutually beneficial cooperation in those areas.

42. Decided to strive to expand cooperation in the field of advanced biofuel and to explore further cooperation on development of aviation biofuel.

43. Welcomed the recent signing of a new Environmental Law Annex under the EPA-MEP Memorandum of Understanding on Scientific and Technical Cooperation in the Field of Environment. This annex is intended to strengthen cooperation in the field of environmental law. Building on 30 years of cooperation, The U.S. Environmental Protection Agency (EPA) and China's Ministry of Environmental Protection (MEP) proposed holding the next meeting of the Joint Committee on Environmental Cooperation (JCEC), in China in the second half of 2012.

44. Announced further collaboration on groundwater investigation including soil remediation, beginning with USTDA-supported technical workshops and study in the United States. Advanced cooperation on reducing air pollution through technical study tours organized by USTDA on mercury emissions controls and green cement production.

45. Decided to strengthen cooperation and exchange through the APFNet and carry out and jointly promote sustainable forest management and conservation in the Asia-Pacific Region.

46. Decided to increase bilateral exchanges in science, technology, and policy to enhance the pragmatic cooperation between the United States and China on fronts such as food security, food safety, and sustainable agriculture.

47. Decided to jointly support wildlife enforcement efforts to combat illegal trafficking of endangered and protected wildlife. The United States and China will participate in a Special Investigations Group meeting in Nanning, China, June 20-21, led by ASEAN-WEN, where wildlife investigators and forensic scientists will identify and recommend improved enforcement and inspection efforts.

48. Affirmed our mutual commitment to strengthening joint research between the National Oceanic and Atmospheric Administration (NOAA) and the China Meteorological Administration (CMA) through the U.S.-China Science and Technology Agreement to develop accurate and reliable capabilities for observing and understanding the behavior of greenhouse gases in the atmosphere.

49. Signed the Framework Plan for Ocean and Fishery Science and Technology Cooperation for 2011-2015 between NOAA and the State Oceanic Administration . The two sides decided to develop the implementation plan of the "Indian Ocean Southern Climate Change Observation, Reanalysis and Prediction" (ISOCORE) program.

## VI. Breakout Sessions and Other Meetings

50. Held breakout sessions on Climate Change, Energy Security, Policy Planning, South Asia, Sudan-South Sudan, and Peacekeeping, and conducted a series of bilateral meetings between senior officials on a broad range of issues covering the entire strategic track of the U.S.-China relationship.

PRN: 2012/705

## ***Assistant Secretary Gordon in Kyiv Discusses U.S.-Ukraine Issues***

**06 February 2012**

U.S. Department of State

Press Availability with Philip H. Gordon

Assistant Secretary, Bureau of European and Eurasian Affairs

Kyiv, Ukraine

February 6, 2012

Press Roundtable on U.S.-Ukraine Issues

ASSISTANT SECRETARY GORDON: Hello, everybody. Thanks for coming. Apologies for keeping you waiting. I've just come from a long series of meetings. I saw Mr. Lyovochkin this morning, I saw the Prime Minister, and I saw Deputy Foreign Minister Klimkin.

I'm here in Ukraine to talk to counterparts about the wide range of issues that we're working on with this country and also to follow up on the meeting that Secretary Clinton had with President Yanukovich the other day at the Munich Security Conference. I'll just give you a sense of what the Secretary had to say to the President and what I've been saying in my meetings here about this relationship.

We want to strengthen our partnership with Ukraine in a number of areas, from the economy to energy to security to democracy.

In the area of energy, the Secretary expressed appreciation for Ukraine's efforts to reform the energy sector and an American willingness to help, particularly in the area of possibly exploring for shale gas.

She also expressed appreciation for Ukraine's work with us in transferring the highly enriched uranium out of Ukraine that President Yanukovich promised at the Nuclear Security Summit. It's a big priority for the United States.

We also talked about ways to increase American investment in Ukraine and I expressed, frankly, to my counterparts here today on this issue that there remain some obstacles to that investment in the form of regulations and in the areas of taxes and customs and on the question of corruption.

I met this morning - before seeing Ukrainian counterparts, I met this morning with a group of American business people and heard some of the difficulties they face in trying to expand investment in Ukraine.

American exports to Ukraine are up and I think at an all-time record high, but they're still only around \$2 billion which is much less than it should be. I also pointed out statistics showing that Ukraine ranks very low on a list of countries that are ranked by how easy it is to do business in Ukraine. I think it was ranked 152nd out of 183 countries, and that's very unfortunate, because if it's difficult to do business, then American businesses won't come and Ukraine won't develop. So we hope that some of these issues will be tackled on taxes, customs, regulations and corruption, because we want to see more Americans investing in Ukraine.

I also raised with my counterparts, and the Secretary raised with President Yanukovich, the issue of democracy in Ukraine. We stressed the importance of free and fair and transparent elections next October. And we expressed concerns about the perception of selective prosecutions, most notably in the case of former Prime Minister Tymoshenko. What Secretary Clinton said to the President is that this perception interferes with the full development of the relationship we would like to have with Ukraine.

It's not for us on the outside to prescribe how Ukraine's judicial system works, but the perception of selective prosecution is an unfortunate one and it stands in the way of full development of our relations, as between the Ukraine and the European Union.

So those are some of the issues that I raised here in Kyiv today, some of the issues the Secretary raised in her meeting. But the basic message was that we want to see increasingly strong U.S.-Ukraine relations. We think Ukraine has enormous potential and we want to see it continue down the course towards Euro-Atlantic integration, stability, prosperity and democracy.

I'll be happy to take your questions.

QUESTION: [Through Interpreter]. Assistant Secretary, we do witness certainly more energetic meetings, a more energetic relationship: meeting of the Secretary with the President, your visit today here. You said and the Secretary expressed to President Yanukovich what you would like to see in relations with Ukraine.

It would be interesting to know, what is your perception, whether President Yanukovich and your Ukrainian interlocutors took what you told them on board, or whether you have any other secret diplomatic weapons to make sure that what your vision that you express will move forward. And whether we should see as an expression of displeasure of the United States with selected prospection in Ukraine, the fact that Secretary Clinton is not coming to Kyiv for the inauguration of the new embassy compound here.

ASSISTANT SECRETARY GORDON: Thank you. You'll have to ask the Ukrainian government what their perception of our message is. All we can do is be clear about what we think, and I think we have been. We are very frank and transparent with our friends. We consider Ukraine a friend, and we say the same thing public as in private. I don't think anything Secretary Clinton said about the Tymoshenko issue, about energy, about the investment climate, about our desire to expand our relations - I don't think any of that will have come as a surprise to President Yanukovich. I would encourage you not to see the absence of a visit by the Secretary today as any sort of message. She has an enormously busy schedule. She of course visited Ukraine last year, had to get back to Washington, and while she would no doubt like to inaugurate every new embassy the United States has, that's not always possible.

On the contrary, if there was a message it's that she wanted to meet with the President when they had the opportunity in [inaudible], and that was the first bilateral meeting she did after her speech.

QUESTION: Can I follow up on what you were referring to about the question of Tymoshenko? There's been, over the last few months, attempts to persuade or convince Yanukovich about what he should - or [inaudible] the atmosphere he should create. Recently it was suggested by former Ambassador Steven Pifer that it might be time to start thinking about blacklisting - visa bannings of Ukrainian officials. It's clear that Yanukovich either isn't getting the message - he's either ignoring it or not getting it or something along these lines - [inaudible] to do what Ambassador Pifer suggested.

ASSISTANT SECRETARY GORDON: I think as I said, we have decided that the best way for us to convey messages is to speak frankly, both in public and in private, and so the Secretary's choice was to meet with the President to tell him exactly what she thought, which I think I shared with you here, which I have said to my interlocutors here, and I'm saying publicly now. I think that's the best way we think we can convey messages on this issue.

QUESTION: [Through Interpreter]. However if your message gets ignored over and over again, do you have any other leverage that you are prepared to employ? And second, a very specific question, is the United States prepared to recognize the results of October elections here if Tymoshenko and her political force is not allowed to participate?

ASSISTANT SECRETARY GORDON: Two separate questions. On October, let's not get ahead of ourselves. We have said that we want to see a full, fair and transparent election. That would mean that all legitimate opposition groups should be allowed to participate in that election. We have been assured that that is the full intention of the Ukrainian authorities.

Ukraine is going to be the next Chairman in Office of the OSCE next year and I've said it would be quite an appropriate symbol, gesture, for that incoming chairmanship to be the model in how you run an election, how you invite in international observers including OSCE observers, to make sure that everything is absolutely transparent, and, again, I was given assurances that that was the intention of Ukraine.

On your first question, I think what I said about the consequences of perceived selective prosecution was that it stood in the way of the kind of relationship that Ukraine could have with the United States and European Union.

In the case of the European Union, I think it's very clear that includes that the European Union has said that a deep and comprehensive free trade agreement and the association agreement won't be signed and implemented until political circumstances are appropriate. I think, by that, it's clear that they mean this issue has to be dealt with.

The United States strongly supports that approach. We were in close contact with our European colleagues as they were proceeding in these areas. I was personally in touch with Commissioner Fuele, so we not only strongly support the EU's approach, but in our own case, as I've said, this issue stands in the way of the development of the relationship and the way we would like it.

If Tymoshenko remains in prison, doesn't appear to be getting appropriate care, and there are issues with party registrations for October, I think it's fair to say that would stand in the way of relations with both the United States and the European Union.

QUESTION: Is Tymoshenko receiving appropriate care in your opinion?

ASSISTANT SECRETARY GORDON: I think there are real questions about that and they haven't fully been answered yet. I haven't personally seen her nor have representatives of the United States recently been able to, but that's part of the problem. We've gotten some negative reports about her health and her conditions and her access to medical care. We can't independently verify them, but they are of great concern to us.

QUESTION: [Through Interpreter]. Have you had the intention to visit her and couldn't for some reason?

ASSISTANT SECRETARY GORDON: Our ambassador expressed an interest in doing so and has not been permitted to do so. On this very short trip I didn't make a specific request myself.

QUESTION: [Through Interpreter]. Is this true that apart from the frank and friendly conversation the United States administration has no other ways to influence, no other leverage over the behavior of the Ukrainian government like the leverage the European Union has with its association agreement?

ASSISTANT SECRETARY GORDON: There is no pending specific issue that's analogous to the pending association agreement and DCFTA. But it remains the reality that there are open questions about how the United States could help Ukraine, invest in Ukraine, assist it in achieving its objectives that we're not able to do. It's simply a reality so long as this problem remains.

Markets make independent decisions. There are a lot of opportunities in the globalized world in which we live. Perceptions of political instability or negative reputation can have a very big impact that is not a specific policy decision but its consequences can be very big.

QUESTION: If we're talking about the economy, it's clear that Ukraine is in something of a bind right now. The Russians didn't give them the gas deal they wanted, now they've suddenly started speed flying to Washington and trying to talk to Lagarde in Davos. These meetings are happening, but it's not clear that Ukraine is actually bringing anything new to the table.

Is it clear to you what they're bringing to the table? Do they have any new arguments? Or is their argument simply, please give us the money or we'll have to take the money from Russia with all the political concessions that would entail?

ASSISTANT SECRETARY GORDON: Again, I'll leave it to the Ukrainian government to describe how it intends to meet the challenges that you mention, but I think it's true that they are seeking to renegotiate the gas deal with Russia and haven't yet succeeded. They are hoping to get the IMF to move forward with another tranche of assistance but haven't yet met the IMF's conditionality. And they're hoping to get more support and investment from the United States and European Union, but as I described, the combination of the Tymoshenko case and the challenges to doing business in Ukraine remain a constraint on that assistance at the same time.

QUESTION: [Through Interpreter]. What is your opinion, what is your view of the reforms that the Yanukovich cabinet headed by Prime Minister Azarov is said to be conducting? And secondly, what would be your comment to observations of certain cynical domestic experts who say that relatively soft reactions of the U.S. administration to misbehavior of the Ukrainian government is conditioned by either complete loss of interest in Ukraine or the fact that not all of the highly enriched uranium has been transferred from Ukrainian territory yet?

ASSISTANT SECRETARY GORDON: To clarify the second question, the suggestion is that the United States has been soft on the government of Ukraine either because we're not interested or because we're waiting for the HEU to be transferred? Is that the question?

QUESTION: [Through Interpreter]. Yes.

ASSISTANT SECRETARY GORDON: I guess I'd challenge the premise that we've been somehow soft. I'm not sure what that means. I think I've just described -- and I would also challenge the premise that we're not interested. I've just described how very clear we've been about how this case stands in the way of the development of the relationship and some of the consequences that it has, and that our Secretary of State went out of her way to make this point clear to the President of Ukraine. I think that's pretty direct.

I also don't accept the notion that we're not interested in Ukraine. Again, I think I've described not just the meeting that took place over the weekend and my visit here, but our consistent pattern of interest and engagement at so many levels over many months. I think you've seen a

number of statements, letters coming under the direct signature of the Secretary of State. I've told you about some of my extensive engagements with the European Union. We have discussed it at the highest levels. Our President has met with your President. So I think there's an enormous amount of interest in Ukraine. Again, I can attest personally to the Secretary of State's interest who sees such potential in Ukraine and I think really wants to see it develop.

I owe you an answer to the first part of your question about reforms, and I would just say I do believe that the government is working hard on and is serious about reforms, and I had the opportunity to hear about them today. Ultimately markets are going to decide if reforms have been enough and I think what I described about this ongoing perception that there is still too much regulation, lack of transparency, and corruption standing in the way, it would be impossible to judge the reforms a success until markets and investors decide that Ukraine is a more attractive place.

QUESTION: [Through Interpreter]. You mentioned Russian-Ukrainian gas talks. Any advice for Ukraine how to influence the Russian position and get the conditions that Ukraine is seeking? Maybe the way to go is to sue in the International Arbitration Court. What would be your advice?

ASSISTANT SECRETARY GORDON: I think the most important thing Ukraine can do is work on its own energy efficiency, other sources of energy, and own sources of energy to make it less dependent on a single supplier. That's ultimately the way to improve leverage in a negotiation about price. I think there's a lot more that can be done in all three of those areas, and we would be ready to help. Thanks, everybody.

Read more: <http://translations.state.gov/st/english/texttrans/2012/02/20120207173339su0.2780116.html#ixzz26iNxIwZF>

## **Проекты в США и Канаде. Сланцевый газ на 1 августа 2012. Reuters**

### ***Factbox: U.S. in one of its largest-ever pipeline build-outs***

<http://www.reuters.com/article/2012/07/30/us-oil-usa-pipelines-factbox-idUSBRE86To2L20120730>

*(Reuters) - The boom in U.S. onshore oil and liquids production has generated what could be the nation's largest-ever pipeline build-out to move that output from often-remote areas to storage or refineries.*

*Here is a list of projects aimed at providing new, expanded and reversed liquids flows to markets from U.S. plays and Canada:*

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#### ***IN SERVICE***

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***PROJECT: West Texas-Houston Access***

***OPERATOR: Sunoco Logistics Partners LP***

***ORIGIN/DESTINATION: Connects existing pipelines at Goodrich, Texas, to send oil from the Permian Basin of west Texas to the Gulf Coast at Houston***

***CAPACITY: Initially, up to 40,000 barrels per day of undifferentiated West Texas crudes. Expandable to 44,000 bpd by early 2013. Both WTS and West Texas Intermediate at Midland will flow on the line eventually. Coupled with a West Texas-Longview Access to carry Permian crudes to the Mid-Valley pipeline to the Midwest***

***COST: n/a***

***STARTUP: April 2012***

***PROJECT: Seaway pipeline reversal***

***OPERATOR: Enterprise Product Partners and Enbridge Inc***

***ORIGIN/DESTINATION: Cushing, Oklahoma, to Houston, Texas***

***COST: \$300 million for initial reversal, \$2 billion for final expansion with new parallel loop pipeline***



*OPERATOR: Enterprise Products*

*ORIGIN/DESTINATION: Houston Ship Channel area*

*CAPACITY: 4.5 million barrels, expandable to 6 million barrels, to be linked by pipeline to Eagle Ford shale to the west (see above); by pipeline to Beaumont-Port Arthur refineries to the east (see below)*

*COST: n/a*

*STARTUP: Second quarter 2012*

*PROJECT: Eagle Ford Pipeline*

*OPERATOR: Plains All American*

*ORIGIN/DESTINATION: 130-mile crude line and condensate from Eagle Ford production to Three River/Corpus Christi refineries*

*CAPACITY: 300,000 bpd take-away from western Eagle Ford to Three Rivers/Corpus Christi*

*COST: \$160 million*

*STARTUP: Second half 2012*

*PROJECT: Gardendale Gathering System*

*OPERATOR: Plains All American (acquired from Velocity)*

*ORIGIN/DESTINATION: 120-mile gathering system in Eagle Ford, connects to Eagle Ford Pipeline*

*CAPACITY: 150,000 bpd expandable to 185,000 bpd*

*COST: \$40 million*

*STARTUP: 2013*

*PROJECT: Pettus to Corpus Christi, Texas line*

*OPERATOR: Koch Pipeline LP*

*ORIGIN/DESTINATION: Will carry Eagle Ford crude from Pettus, Texas to Corpus Christi, Texas*

*CAPACITY: 250,000 bpd*

*COST: n/a*

*STARTUP: Mid-2012; Started up a previously idled Pettus South line in cooperation with Nustar, which added 30,000 bpd capacity*

*PROJECT: Permian Basin Expansion Projects*

*OPERATOR: Plains All American*

*ORIGIN/DESTINATION: Various links extending, expanding lines in Permian Basin, west Texas*

*CAPACITY: From 40,000 to 60,000 bpd crude oil*

*COST: \$175 million*



***PROJECT: Toledo Pipeline (Line 17) Expansion***

*OPERATOR: Enbridge Inc*

*ORIGIN/DESTINATION: Stockbridge, Michigan, to Toledo, Ohio*

*CAPACITY INCREASE: 100,000 bpd to 180,000 bpd*

*COST: \$197.57 million*

*STARTUP: Early 2013*

***PROJECT: Gulf Coast Project (southern part of Keystone XL, now a separate project)***

*OPERATOR: TransCanada Corp*

*ORIGIN/DESTINATION: Cushing, Oklahoma, to Houston and Port Arthur on Texas Gulf Coast*

*CAPACITY: 700,000 bpd*

*COST: \$2.3 billion*

*STARTUP: Mid to late 2013; currently acquiring right of way. Was announced after the Obama administration rejected initial permit for Keystone XL, which originally included the Gulf Coast link and stretched from Canada to Gulf Coast.*

***PROJECT: Houston to Beaumont-Port Arthur***

*OPERATOR: Enterprise Products*

*ORIGIN/DESTINATION: ECHO terminal to refineries*

*CAPACITY: up to 200,000 bpd*

*COST: n/a*

*STARTUP: Early 2014*

***PROJECT: TexStar's Eagle Ford Shale pipeline***

*OPERATOR: TexStar Midstream Services LP*

*ORIGIN/DESTINATION: 110-mile link from Frio, Lasalle and McMullen counties to NuStar's line at Oakville; to get Eagle Ford crude and condensate to terminal in Corpus Christi*

*COST: n/a*

*CAPACITY: 100,000 bpd of crude and condensates*

*STARTUP: Third quarter 2012*

***PROJECT: Houma-to-Houston pipeline reversal***

*OPERATOR: Shell Pipeline LP*

*ORIGIN/DESTINATION: Houma, Louisiana, to Houston, Texas; reversal will run from Houston to Houma*

*CAPACITY: 300,000 bpd*

*COST: \$100 million*

*STARTUP: early 2013*

*PROJECT: Westward Ho*

*OPERATOR: Shell Pipeline*

*ORIGIN/DESTINATION: St. James, Louisiana to Houston*

*CAPACITY: Initially 300,000 bpd, expandable to 900,000 bpd depending on shipper interest*

*COST: n/a*

*STARTUP: Third quarter 2015, pending regulatory approvals*

*PROJECT: Crane-to-Houston Pipeline (Longhorn Pipeline reversal)*

*OPERATOR: Magellan Midstream Partners*

*ORIGIN/DESTINATION: Will reverse flow of Crane-to-Houston segment of Longhorn Pipeline, which currently carries refined products from Houston to El Paso, Texas*

*CAPACITY: Initial 135,000 bpd; expanding to 225,000 in 2013*

*COST: Expected cost \$310 million*

*STARTUP: Early 2013 startup, full capacity in mid-2013*

*PROJECT: Double Eagle Pipeline*

*OPERATOR: Copano Energy in 50-50 joint venture with Magellan Midstream*

*ORIGIN/DESTINATION: Connects to existing pipeline owned by Copano, enabling delivery of Eagle Ford condensate to Corpus Christi*

*CAPACITY: 100,000 bpd initially*

*COST: \$150 million*

*STARTUP: End of 2012, full service by early 2013*

*PROJECT: Karnes County to Corpus Christi line*

*OPERATOR: Koch*

*ORIGIN/DESTINATION: Will carry Eagle Ford crude from Karnes County, Texas to Corpus Christi, Texas*

*CAPACITY: 120,000 bpd*

*COST: n/a*

*STARTUP: 2012*

*PROJECT: Allegheny Access Pipeline*

*OPERATOR: Sunoco Logistics Partners*

*ORIGIN/DESTINATION: Midwest to eastern Ohio and western Pennsylvania*

*CAPACITY: Initially 85,000 bpd, expandable to 110,000 bpd*

*COST: N/A*

*STARTUP: First half of 2014*

*PROJECT: Spearhead North (Line 62) Expansion*

*OPERATOR: Enbridge*

*ORIGIN/DESTINATION: Flanagan, Illinois to Griffith, Indiana*

*CAPACITY: 130,000 bpd to 235,000 bpd*

*PROJECT: Line 6B Expansion*

*ORIGIN/DESTINATION: Griffith, Indiana to Sarnia, Ontario*

*CAPACITY: 231,000 bpd to 491,000 bpd*

*COST FOR BOTH PROJECTS: \$2 billion*

*STARTUP: Early 2014*

*PROJECT: U.S. Mainline/Alberta Clipper Expansion*

*OPERATOR: Enbridge*

*ORIGIN/DESTINATION: Canada/U.S. border near Neche, North Dakota, to Superior, Wisconsin*

*CAPACITY: 450,000 bpd to 570,000 bpd*

*PROJECT: U.S. Mainline/Southern Access Expansion*

*ORIGIN/DESTINATION: Superior, Wisconsin, to Flanagan, Illinois*

*CAPACITY: 400,000 bpd to 560,000 bpd*

*COST FOR BOTH PROJECTS: \$395 million*

*STARTUP FOR BOTH: Mid-2014*

*(Reporting by Kristen Hays, [Janet McGurty](#), [Selam Gebrekidan](#), [Joshua Schneyer](#), Jeff Jones, [Scott Haggett](#) and [David Sheppard](#); Editing by [Dale Hudson](#))*

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***Insight: Oil pipeline crunch shifts U.S. shale race from drillbits to valves.***

**<http://www.reuters.com/article/2012/07/30/us-oil-usa-pipelines-idUSBRE86To2820120730>**



*(Reuters) - The U.S. shale oil revolution can't be stopped, but it could be delayed by a potential shortfall of 10-ton valves and giant pipeline pumps essential for rebalancing markets upended by the surge in production.*

*Amid an unanticipated boom in inland oil output that turned the domestic market upside down last year, firms from Enterprise Products Partners to Shell Pipeline and Plains All American have launched a \$20 billion bonanza to build, expand or reverse two dozen pipelines in the past year.*

*But as they help effectively to switch the flow of oil from the north to southern refineries and relieve the glut of cut-price, landlocked crude, concerns are growing that the firms that make key pipeline components may be straining to keep pace.*

*"The supply chain hasn't quite caught up," said Terry McGill, president of Enbridge Energy Co Inc, the U.S. division of Canadian pipeline giant Enbridge Inc, which has some \$4 billion worth of U.S. projects on the books.*

*Thus far, there are no signs of project delays or cost overruns in what is the biggest build-out of oil and liquid pipelines since World War II.*

*Executives say they are building in plenty of lead time to produce dozens of multi-ton valves and massive pumps essential for maintaining pipeline flow. Underutilized steel mills, meanwhile, can rev up furnaces to forge the pipes -- which have a diameter of up to 42 inches.*

*But the task is enormous. After decades of moving U.S. offshore or Middle East crude from the Gulf Coast to inland refineries, pipelines must flow in the opposite direction to accommodate surging output from Canada and shale oilfields such as North Dakota's Bakken.*

*It all makes for a historic boom, said Larry Schwartz, senior analyst for natural gas liquids at consultancy Wood Mackenzie: "Midstream, which was the redheaded stepchild, is now in vogue."*

### **RAMPING UP FAST**

*Spending has already accelerated far faster than many expected. A year ago, the Interstate Natural Gas Association of America (INGAA) estimated North America would add 19,000 miles of oil pipelines at a cost of \$31.4 billion by 2035 as production surged 50 percent to 12.7 million barrels per day.*

*But industry monitor IIR Energy now estimates that \$10 billion a year will be spent on crude oil pipeline projects in 2012 and 2013, four times the average of the previous seven years.*

*"You're not just connecting in to existing grids," Enbridge's McGill said. "The grid is being built."*

*The biggest projects, those pumping 1 million barrels daily or more, face the greatest risk of delay, experts say. Each of the dozens of valves required on something like TransCanada Corp's proposed \$7.6 billion Keystone XL pipeline -- which has a 36-inch diameter -- usually must be custom-made.*

*"We definitely consider ours an 'engineered to spec' product," said John Starck, vice president of sales for M&J Valve, a division of multi-industry manufacturer SPX Corp that operators say is a leading valvemaker for liquids pipelines.*

*"We do not actually build the product and keep it on the shelf because each customer has their own unique set of specs."*

*Meanwhile, the market is consolidating as bigger companies snap up industry-favored manufacturers. That shrinks the already small field of vendors in the brand- and manufacturer-loyal industry, threatening higher prices as demand swells.*

*Operators saw prices for parts shoot up sharply in 2007 and 2008, the apex of the last huge pipeline build-out that brought on thousands of miles of new natural gas pipelines.*

*"The price just goes up the more projects are out there," said Leon Zupan, president of gas pipelines for Enbridge's U.S. division. "Whenever you need big castings for pumps or valves, there's only so many people who can do it."*

*At SPX, valves and pumps make up part of its fast-growing global flow technology business that the company has said it expects overall to contribute \$1 billion to sales this year.*

*SPX has given no specific sales data on parts involved in the U.S. liquids pipeline boom.*

### **CANADA TO BAKKEN TO OHIO...**

*The first huge build-out in the United States came during World War II when the federal government ordered a two-pipeline system, the Big Inch and Little Big Inch, to carry oil and refined products to the Northeast from the Gulf Coast.*

*The network, created largely to thwart German submarines that had repeatedly torpedoed tankers along the Atlantic Coast, later had its lines converted to carry natural gas.*

*Postwar prosperity generated industrial demand for natural gas, and pipeline construction flourished for another 20 years. Big one-off oil projects included the Colonial refined product pipelines linking Gulf Coast refiners to the Northeast market and the 48-inch, 800-mile Trans-Alaska Pipeline System (TAPS) to bring newfound Alaskan crude to that state's coast.*

*After that, pipeline construction slowed dramatically as refinery construction stopped and steady oil production necessitated only incremental improvements in the network.*

*Then came the natural-gas shale frenzy that spurred a huge wave of pipeline construction from 2006 until 2008, when the financial crisis and a collapse in prices halted investment, leaving some parts distributors nursing heavy losses.*

*MRC Global Inc, the largest global distributor of pipe, valve and fittings to the energy industry, recorded a \$46.5 million writedown in 2009 on an overhang of unused inventory as customers dried up. The company declined to comment on its business.*

*Now the focus is on crude as drillers apply the same hydraulic fracturing technology that upended the natural gas market five years ago to neglected onshore oilfields, unleashing a burst in production unimagined a few years ago.*

*Output in the Bakken alone has surged from nothing to more than 600,000 barrels per day in five years, and may double by 2015.*

*Texas is on pace to issue the most drilling permits since 1985 as output from Eagle Ford, the Permian Basin and the Granite Wash surges. More liquids may emerge from the gas-heavy Marcellus shale in the Northeast or Ohio's nascent Utica shale.*

Much of that increased production is in remote areas far from refining hubs or in the Midwest and Northern Tier, turning the traditional south-to-north flow pattern on its head. Producers were forced to turn to costly rail, barge and even truck tankers to move oil from the wellhead to refineries.

"New infrastructure is going to be critical to push these commodities around the country where they need to be," said David Seaton, chairman and CEO of engineering company Fluor Corp. "It's going to be the lifeblood of economic growth for my lifetime."

The aim is to eliminate the bottlenecks and reduce transportation costs, shrinking the discount of benchmark inland U.S. crude in Cushing, Oklahoma to global prices. At \$15 a barrel last week, the gap remains historically wide.

The first such project, Phase I of the reversal of the Seaway Pipeline to move crude from Cushing to the Texas coast, began pumping on time in mid-May. It will require a host of additional pumps and valves -- but no major pipeline sections -- to reach 450,000 bpd by the first quarter of 2013.

It's not just oil pipes. Some \$6.5 billion is being spent on natural gas liquids pipelines needed to accommodate output growth in propane, butane, hexane and other NGLs that emerge from shale plays and feed hungry petrochemical complexes, according to IIR.

Operators are optimistic, but on guard.

"By carefully managing those rare instances when we've had an issue with a valve or a pump, we have been able to complete the vast majority of our projects on time or even ahead of schedule," said Leonard Mallett, senior vice president of engineering for Enterprise Products Partners. His company is one of the largest U.S. operators with planned projects totaling some \$7 billion across pipelines, terminals and storage.

## 10-TON VALVES

As manufacturers see orders for critical inputs increase, some are hiring more workers, from welders to salespeople. Others are soaking up current capacity to produce more by adding shifts and some seem to be expanding, cautiously.

A valve for a 20-inch pipeline can weigh 3,000 pounds (1,360 kg) to 4,100 pounds, while one for a 36-inch line can weigh 15,500 to 19,000 pounds, depending on whether flanges are included. The biggest valves for the largest pipes are heftier, plus they cost about \$120,000 each.

It can take 20 to 22 weeks of lead time to build a 42-inch valve, said M&J Valve's Starck. Enbridge's McGill said for big pressure pumps, "it would be a year."

John Lenander, vice president of oil and gas valves for another major valve and pump supplier, Dallas-based Flowserve, said timing depends on the level of specialization, the amount of valves needed, and pipe size.

For example, 10 valves for 200 miles of 42-inch pipe could be supplied in six to eight months. But 60 valves for 1,200 miles of 42-inch pipe would more likely be quoted with partial deliveries starting in six months, with everything completed in about a year, he said.

"We've been putting a lot of additional resources into supply-chain management, project management and engineering," he said. Flowserve, which reports second-quarter results on Tuesday, is also expanding plant capacity, he said, but declined to provide details.

Flowserve has said U.S. and Canadian unconventional resources -- such as shale and tight oil and gas production -- have led to "significant project activity" in its North American oil and gas, chemical and power markets. The company does not break out valves and pumps for U.S. liquids pipelines.

Starck said M&J, whose parent SPX reports earnings on August 1, has bulked up its manufacturing workforce slightly, but so far has mostly worked to optimize existing plant capacity.

*ClydeUnion Pumps, a leading pumpmaker that SPX bought last year for \$1.25 billion, has no plans to expand manufacturing capacity, confident its five factories in North America and Europe can meet demand.*

*"We can see ahead just how our capacity is, and do what we need to do whether it be one shift or two shifts," said Dick McAdam, vice president of sales in the Americas for ClydeUnion.*

### **SOME COMPLAINTS**

*Some competitors to the top firms say builders have begun to complain about long lead times, even at manufacturers with which they regularly work.*

*"You need to diversify your supplier base. That's being done right now, and it should have been done a long time ago," said Elis Zhonga, a senior U.S. sales representative for Valvitalia, which distributes Italian- and Chinese-made valves. He said the company is hiring more sales and distribution staff at its U.S. operations in response to increased demand.*

*But Zhonga said that despite the complaints, pipeline companies are loyal to tried-and-true suppliers, and he doesn't expect that to change even if manufacturing times lengthen.*

*The most basic raw material for pipelines and a majority of mainline valves -- steel -- remains plentiful, operators say.*

*U.S. steel production is at about 75 percent capacity, according to the American Iron and Steel Institute. About 7.2 percent of steel production went to the energy industry in 2011, and that share is expected to grow this year.*

*Capacity is rising as well. Industrial Info is tracking more than \$1.7 billion in projects to build mills designed to produce pipe in North America, much of it by foreign companies including China's Tianjin Pipe and India's Welspun Gujarat Stahl Rohren.*

*(Additional reporting by [Steve James](#) and [Matt Daily](#) in New York; Editing by [Dale Hudson](#))*