

EXAMINING THE EFFECTS OF LIQUEFIED NATURAL GAS EXPORTS ON U.S. FOREIGN POLICY

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY POLICY,
HEALTH CARE AND ENTITLEMENTS

OF THE

COMMITTEE ON OVERSIGHT
AND GOVERNMENT REFORM

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EXAMINING THE EFFECTS OF LIQUEFIED NATURAL GAS EXPORTS ON U.S. FOREIGN POLICY

Wednesday, April 30, 2014

HOUSE OF REPRESENTATIVES
SUBCOMMITTEE ON ENERGY POLICY, HEALTH CARE &
ENTITLEMENTS,
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM,
Washington, D.C.

The subcommittee met, pursuant to call, at 9:35 a.m., in Room 2154, Rayburn House Office Building, Hon. James Lankford [chairman of the subcommittee] presiding.

Present: Representatives Lankford, Jordan, Walberg, DesJarlais, Farenthold, Woodall, Massie, Speier, Norton, Duckworth, Cardenas, and Lujan Grisham.

Staff Present: Melissa Beaumont, Majority Assistant Clerk; Molly Boyl, Majority Deputy General Counsel and Parliamentarian; David Brewer, Majority Senior Counsel; Caitlin Carroll, Majority Press Secretary; Drew Colliatie, Majority Professional Staff Member; John Cuaderes, Majority Deputy Staff Director; Adam P. Fromm, Majority Director of Member Services and Committee Operations; Linda Good, Majority Chief Clerk; Tyler Grimm, Majority Senior Professional Staff Member; Ryan M. Hambleton, Majority Senior Professional Staff Member; Christopher Hixon, Majority Chief Counsel for Oversight; Matt Mulder, Majority Counsel; Laura L. Rush, Majority Deputy Chief Clerk; Jessica Seale, Majority Digital Director; Jaron Bourke, Minority Director of Administration; Courtney Cochran, Minority Press Secretary; Jennifer Hoffman, Minority Communications Director; Adam Koshkin, Minority Research Assistant; Elisa LaNier, Minority Director of Operations; Juan McCullum, Minority Clerk; Dave Rapallo, Minority Staff Director; and Katie Teleky, Minority Staff Assistant.

Mr. LANKFORD. The committee will come to order.

I would like to begin this hearing by stating the Oversight Committee mission statement.

We exist to secure two fundamental principles: first, Americans have the right to know the money Washington takes from them is well spent and, second, Americans deserve an efficient, effective Government that works for them. Our duty on the Oversight and Government Reform Committee is to protect these rights. Our solemn responsibility is to hold Government accountable to taxpayers, because taxpayers have a right to know what they get from their Government. We will work tirelessly in partnership with citizen

watchdogs to deliver the facts to the American people and bring genuine reform to the Federal bureaucracy. This is the mission of the Oversight and Government Reform Committee.

Today we are here to discuss the role of liquefied natural gas, the exports and how we are handling that, and national security policy and foreign policy. This hearing builds on another hearing held by this subcommittee last year that focused on the Department of Energy's strategy and process in reviewing applications to export LNG, specifically to non-Free Trade Agreement countries. At that hearing we were joined by Mr. Christopher Smith of DOE, who is here again with us today. Thank you. We would also like to welcome Deputy Assistant Secretary Hochstein from the U.S. State Department's Bureau of Energy Resources. Thank you both for coming.

By now it is obvious the United States is in the middle of an energy production revolution. This is due almost entirely to advanced drilling techniques, such as hydraulic fracturing, horizontal well drilling that gives us access to resources that were not previously recoverable. Prior to 2005, it was estimated there was less than 200 trillion cubic feet of dry natural gas proved reserves in the United States. As of 2010, that number had risen to over 300 trillion cubic feet, an increase of over 50 percent in just five years.

Economic studies such as the NERA study commissioned by the DOE to inform its decision-making on LNG exports indicate the United States will see a net economic benefit from LNG exports.

Energy exports could also be a powerful and much-needed foreign policy tool should we choose to wield it. Many of our friends and allies are forced to buy their oil and gas from the resource autocracy of Russian President Vladimir Putin. In order to meet its domestic power needs, Ukraine imports over 60 percent of its natural gas. All these imports are from Russia. This gives Russia an immense amount of power over Ukraine. This is also the case for several other Eastern European countries, such as Hungary and Lithuania. Russia has a habit of squeezing its neighbors' energy supplies when it wants to influence their actions.

The United States has the resources to counter this and to come to the aid of our Eastern European allies; what it needs is the political will. As mentioned in our previous hearing, this subcommittee is familiar with the DOE process for improving LNG export licenses. For countries with which we have a Free Trade Agreement covering natural gas, the natural Gas Act of 1938 requires DOE to grant applications to export LNG. Such export is deemed to be consistent with the public interest, and the authorization must be granted without modification or delay. For countries with which we do not have a Free Trade Agreement covering natural gas, the Natural Gas Act still presumes that DOE will grant the application to export LNG unless the Department finds the proposed exportation will not be consistent with the public interest.

The United States has exported natural gas via pipeline to Canada and Mexico since the 1930s. Furthermore, the U.S. has exported LNG from the Kenai Peninsula in Alaska since 1969. For the lower 48 States, in May of 2011, the Department of Energy granted the first permit to export LNG to non-FTA countries. That

facility is currently under construction in southwest Louisiana and will begin exporting LNG very soon.

When we had our last hearing on this topic, this was the only facility approved for non-FTA export. I am pleased to see that number is now seven. However, there are still 24 applicants waiting for DOE approval. I encourage DOE to process these applications expeditiously. The process to determine that exporting excess American product is in our national interest has stretched on for months.

In December 2012, President Obama said to TIME Magazine, "The United States is going to be a net exporter of energy because of new technologies and what we're doing with natural gas and oil." The President also recognized that these "energy [developments] could have a huge geopolitical consequence."

It would seem that the President's remarks are embodied in the State Department's Bureau of Energy Resources. This Bureau, set up only a few years ago, states as one of its goals "To manage the geopolitics of today's energy economy through a reinvigorated energy diplomacy with major producers and consumers."

One objective that I hope to accomplish with this hearing is to get a sense of how the Administration is taking advantage of this national security and diplomatic opportunity afforded by the export of LNG. It seems clear to me this Administration has identified LNG exports as a valuable, if not crucial, part of U.S. diplomacy and strategic relations. I would like to make sure that the different parts of our Government are communicating effectively and efficiently. Is DOE aware of the foreign policy objectives pushed by the State Department? Are these agencies working harmoniously to advance the Administration's goals? Are there any intra-governmental barriers that we can help fix to move this along?

Allowing more exports of this domestic commodity will have a clear effect on the fulfillment of our foreign policy agenda. We need to ensure that we have a strategy in place that safeguards our allies from political volatility outside their borders, and we must have the cross-agency coordination to carry it out.

I thank the witnesses for appearing and I look forward to your testimony.

With that, I recognize the distinguished ranking member, the gentlelady from California, Ms. Speier, for her opening statement.

Ms. SPEIER. Thank you, Chairman Lankford, for today's hearing. I look forward to what I hope will be an informative discussion.

First, I certainly agree that Russian control of the natural gas supplies into and through Ukraine is a critical issue. The OPN Union gets 24 percent of its gas from Russia. But some countries, such as Lithuania, Finland, and Latvia, are dependent on Russia for the entirety of their supply. Considering President Putin's obvious imperial ambitions, the United States must help our European allies lessen their dependence on Russian gas as much as possible.

Unfortunately, at least in the short-term, proposals to help Ukraine by fast-tracking approvals of new LNG export terminals will not meet the goal intended of quickly getting U.S. LNG to Europe, and Ukraine in particular. Currently, the U.S. has only one LNG export terminal, in Alaska, with another terminal in Louisiana scheduled to start operation in 2015. Building more termi-

nals and finding the private investment to fund them will take several years.

I am all in favor of giving the Department of Energy and the Federal Energy Regulatory Commission the resources they need to speed the permitting process. FERC, in particular, has a complex and slow process which could benefit from additional resources. However, we shouldn't pretend that faster permitting alone is a panacea.

In addition, the main barrier to the U.S. export to Europe is not the permitting process; it is the fact that U.S. gas shipped to Europe would be substantially more expensive than cheap Russian gas. Most experts agree that LNG exports from the U.S. would be far more likely to go to Asia, where prices are higher than in Europe. This is not to say that the U.S. should not aim to market gas to Europe. But taking note that conducting foreign policy via energy export is complex.

So how can we help Ukraine, given these practical constraints? A number of efforts are already underway. The U.S. is working with the EU and the International Monetary Fund on a number of efforts to move Europe towards a greater diversity of energy sources, such as reversing flows of natural gas from existing pipelines into Ukraine and further developing Ukraine's own natural gas resources.

Encouraging energy efficiency rarely makes headlines, but in Ukraine it could be a game-changer. Ukraine produces nearly as much gas as it uses, but Ukrainians are notoriously profligate energy users thanks to government energy subsidies. By implementing the same efficiency measures that other European countries already use, Ukraine could be nearly self-sufficient.

Mr. Chairman, I think these efforts to use America's resources to bolster our foreign policy are admirable and will become increasingly important over the next decade. However, we must not lose sight of the economic and environmental side effects of our current energy boom. A Brookings Energy Security Initiative study found that U.S. LNG exports would have a modest upward impact on domestic prices. Even this modest increase, estimated to be around \$50 per family, would be damaging to low-income consumers, who must often choose between heating their homes and buying food. That means that an increase in LNG exports should go hand-in-hand with full funding of the Low Income Home Energy Assistance Program.

We must also not forget the businesses and manufacturers that have built business plans around plentiful low-priced natural gas. Creating jobs through LNG export could be offset by the loss of jobs elsewhere in the economy.

Increasing LNG exports would also increase the environmental risks associated with drilling and gas liquefaction. A strong foreign policy cannot come at the cost of polluting Americans' drinking water with unknown chemicals from fracking fluid or drowning the coasts, including my district, with uncontrolled sea level rise. U.S. LNG exports can provide substantial benefits, but we must be realistic about what is feasible and control for the costs.

Thank you again, Mr. Chairman, for holding this hearing, and to our witnesses for being here today.

Mr. LANKFORD. Members will have seven days to submit opening statements for the record.

We will now recognize our first and only panel.

Mr. Christopher Smith is the Principal Deputy Assistant Secretary for Fossil Energy at the U.S. Department of Energy.

Mr. Amos Huchstein is the Deputy Assistant Secretary for Energy Diplomacy in the Bureau of Energy Resources, the U.S. Department of State.

Pursuant to committee rules, all witnesses are sworn in before they testify. If you would please stand and raise your right hand.

Do you solemnly swear or affirm that the testimony you are about to give will be the truth, the whole truth, and nothing but the truth, so help you, God?

[Witnesses respond in the affirmative.]

Mr. LANKFORD. Thank you. You may be seated.

Let the record reflect the witnesses have answered in the affirmative.

In order to allow time for discussion, I would ask you to limit your oral testimony to five minutes. We will have plenty of time for oral discussion and questions after your testimony is finished. Obviously, your written statement will be made a part of the permanent record as well.

Mr. Smith, you are recognized first.

WITNESS STATEMENTS

STATEMENT OF CHRISTOPHER A. SMITH

Mr. SMITH. Well, thank you very much, Chairman Lankford and Ranking Member Speier, and members of the subcommittee. I appreciate the opportunity to discuss the Department of Energy's program regulating the export of natural gas, including liquefied natural gas.

The incredible abundance we are experiencing in our domestic natural gas supply provides unprecedented opportunities for the United States. Over the last several years, domestic and natural gas production has increased significantly, outpacing consumption growth, resulting in declining natural gas imports. Production growth is primarily due to the development of improved drilling technologies, including the ability to produce natural gas trapped in shale formations.

Production from these sources made up less than 2 percent of the U.S. supply in 2000 and rose to 40 percent of that total in 2012, a dramatic change.

Historically, the Department of Energy has played an important role in development of technologies that have enabled the United States to expand development of these energy resources. Beginning in the late 1970s, research investments by the Department contributed to the development of hydraulic fracturing and extended horizontal lateral drilling technologies that were later refined and commercialized through private sector investments and continued industry innovation, unlocking billions of dollars in economic activities associated with shale gas production.

Thanks to American ingenuity and know-how applied to our abundant domestic natural gas resources, the United States is now

the world's number one natural gas producer and is poised to become a net exporter of natural gas by 2018, according to the Energy Information Administration.

Today, domestic natural gas prices are lower than international prices of delivered LNG to overseas markets. As in the United States, demand for natural gas is growing rapidly in foreign markets. Due primarily to these developments, the Department of Energy has received a growing number of applications to export domestically produced natural gas to overseas markets in the form of liquefied natural gas.

The Department's authority to regulate the export of natural gas arises from the Natural Gas Act, which provides two statutory standards for processing applications to export LNG from the United States. By law, applications to export natural gas to nations with which the United States has a Free Trade Agreement that provides for natural treatment of trade in natural gas are deemed to be consistent with public interest and the Secretary of Energy must grant authorization without modification or delay. As of March 24th, the Department of Energy has approved 35 such applications.

For applications to export natural gas to non-FTA nations, the Secretary must grant the authorization unless, after opportunity for hearing, the proposed export is found to not be consistent with the public interest. In executing that requirement, the Department of Energy established a robust process to assess the public interest, a process that affords the opportunity for the public comment and transparency, and also allows balance of the many aspects of public interest that are potentially affected by the export of natural gas.

While section 3(a) of the Natural Gas Act establishes a broad public interest standard and presumption favoring export authorizations, the statute neither defines public interest nor identifies criteria that must be considered. In prior decisions, however, the Department has identified a range of factors that it evaluates when reviewing an application for export authorization. These factors include economic impacts, international considerations, security of natural gas supply, environmental considerations, and others.

To conduct its review, the Department looks to record evidence developed in the application proceeding. Applicants and interveners are free to raise new issues or concerns relevant to the public interest that may not have been addressed in prior cases. To date, the Department of Energy has granted seven conditional authorizations for long-term applications to export domestically produced lower 48 LNG to non-FTA countries, equivalent to 9.3 billion standard cubic feet per day. As of today, 24 applications are pending to export LNG to non-free trade agreement countries.

The Department will continue processing the pending non-FTA LNG export applications on a case-by-case basis following the order of precedence previously established and set forth on the Department's Web site. During this time, the Department will continue to monitor any market developments and assess their impact and subsequent public interest determinations as further information becomes available.

Given the topic of this hearing, I would also like to note that, as I mentioned earlier, the Department considers international factors

as part of the public interest determination, among many other domestic factors. Of course, we are monitoring the situation in Europe very closely, and we certainly take energy security of our allies very seriously. We have taken recent global events into account in making decisions in recent applications.

The United States' commitment to free trade is another factor in our reviews. An efficient, transparent international market for international gas with diverse sources of supply provides both economic and strategic benefit to the United States and our allies. Indeed, increased production of domestic natural gas has already significantly reduced the need for the United States to import LNG, and global trade LNG shipments that would have been destined for United States markets have been redirected to Europe and Asia, improving energy security for many of our key trading partners.

To the extent United States exports can diversify global LNG supplies and increase the volumes of LNG available globally, it will improve energy security for many U.S. allies and trading partners.

In conclusion, Mr. Chairman, I would like to emphasize that the Department of Energy is committed to moving forward on LNG applications as expeditiously as possible. We understand the significance of this issue, as well as the importance of getting it right. And I would be happy to answer any questions that you may have.

[Prepared statement of Mr. Smith follows:]

**Statement of
Christopher Smith
Principal Deputy Assistant Secretary
Office of Fossil Energy
U.S. Department of Energy**

Before the

**Committee on Oversight and Government Reform
Subcommittee on Energy Policy,
Health Care & Entitlements
United States House of Representatives**

The Department of Energy's Program Regulating Liquefied Natural Gas Exports

April 30, 2014

Thank you Chairmen Lankford and Issa, Ranking Members Speier and Cummings, and members of the Subcommittee; I appreciate the opportunity to be here today to discuss the Department of Energy's (DOE) program regulating the export of liquefied natural gas (LNG).

Recent Developments in LNG Exports

The boom in domestic shale gas provides unprecedented opportunities for the United States. Over the last several years, domestic natural gas production has increased significantly, outpacing consumption growth, resulting in declining natural gas and LNG imports. Production growth is primarily due to the development of improved drilling technologies, including the ability to produce natural gas trapped in shale gas geologic formations.

Historically, the DOE has played an important role in the development of technologies that have enabled the United States to expand development of our energy resources. Between 1978 and 1992, public research investments managed by the Department contributed to the development of hydraulic fracturing and extended horizontal lateral drilling technologies that spurred private sector investments and industry innovation, unlocking billions of dollars in economic activity associated with shale gas.

Today, domestic natural gas prices are lower than international prices of delivered LNG to overseas markets. As in the United States, demand for natural gas is growing rapidly in foreign markets. Due primarily to these developments, DOE has received a growing number of applications to export domestically produced natural gas to overseas markets in the form of LNG.

DOE's Statutory Authority

DOE's authority to regulate the export of natural gas arises under section 3 of the Natural Gas Act (NGA), 15 U.S.C. § 717b. This authority is vested in the Secretary of Energy and has been delegated to the Assistant Secretary for Fossil Energy.

Section 3(a) of the NGA sets forth the standard for review of most LNG export applications:

[N]o person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the [Secretary of Energy] authorizing it to do so. The [Secretary] shall issue such order upon application, unless after opportunity for hearing, [he] finds that the proposed exportation or importation will not be consistent with the public interest. The [Secretary] may by [the Secretary's] order grant such application, in whole or part, with such modification and upon such terms and conditions as the [Secretary] may find necessary or appropriate.

Section 3(a) thus creates a rebuttable presumption that a proposed export of natural gas is in the public interest. Section 3(a) also authorizes DOE to attach terms or conditions to orders that authorizing natural gas exports the Secretary finds are necessary or appropriate to protect the public interest. Under this provision, DOE performs a thorough public interest analysis before acting.

In the Energy Policy Act of 1992, Congress introduced a new section 3(c) to the NGA. Section 3(c) created a different standard of review for applications to export natural gas, including LNG, to those countries with which the United States has in effect a free trade agreement requiring the national treatment for trade in natural gas. Section 3(c) requires such applications to be deemed consistent with the public interest, and requires such applications to be granted without modification or delay.

Free Trade Agreement (FTA) Countries

There are currently 18 countries with which the United States has in place free trade agreements that require national treatment for trade in natural gas for purposes of the Natural Gas Act. These 18 countries include: Australia, Bahrain, Canada, Chile, Colombia, the Dominican Republic, El Salvador, Guatemala, Honduras, Jordan, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, Republic of Korea, and Singapore.

There also are two countries — Israel and Costa Rica — that have free trade agreements with the United States that do not require national treatment for trade in natural gas for purposes of the Natural Gas Act.

Because complete applications under section 3(c) must be granted without modification or delay and are deemed to be in the public interest, DOE does not conduct a public interest analysis of those applications.

DOE Process to Review Applications to Export LNG to non-FTA Countries

DOE's review of applications to export LNG to non-FTA countries is conducted through a public and transparent process. Upon receipt of an application, DOE issues a notice of the application in the *Federal Register*, posts the application and all subsequent pleadings and orders in the proceeding on its website, and invites interested persons to participate in the proceeding by intervening and/or filing comments or protests. Section 3(a) applicants are typically given an opportunity to respond to any such comments or protests and, after consideration of the evidence that has been introduced into the record, DOE issues an order on the application.

Under the Natural Gas Act, DOE's orders are subject to a rehearing process that can be initiated by any party to a proceeding seeking to challenge DOE's determinations. Court review is available as well after the rehearing process is exhausted.

Public Interest Criteria for NGA Section 3(a) Applications

For applications requesting authority to export LNG to countries that do not have free trade agreements requiring national treatment for trade in natural gas, DOE conducts a full public interest review. Section 3(a) of the NGA establishes a broad public interest standard and a presumption favoring export authorizations. In prior decisions, DOE/FE has identified a range of factors that it evaluates when reviewing an application for export authorization. These factors include economic impacts, international considerations, U.S. energy security, and environmental considerations, among others. To conduct its review, DOE/FE looks to record evidence developed in the application proceeding. Applicants and interveners are free to raise new issues or concerns relevant to the public interest that may not have been addressed in prior cases.

Jurisdiction over the LNG Commodity Export Versus the LNG Export Facility

The DOE exercises export jurisdiction over the commodity (natural gas), whereas other Federal, state, and local organizations have jurisdiction over the facilities used in the import or export of the commodity, depending on the facility location.

The Federal Energy Regulatory Commission (FERC) is responsible for authorizing the siting, construction, expansion, and operation of LNG import and export terminals pursuant to a delegation of authority from the Secretary of Energy and section 3(e) of the Natural Gas Act. FERC may approve those applications in whole or in part with such modifications and upon such terms and conditions as it finds necessary or appropriate.

The U.S. Department of Transportation's Maritime Administration (MARAD) is responsible under the Deepwater Port Act of 1974, as amended, (33 U.S.C. § 1501 *et seq.*) for the licensing system for ownership, construction, operation and decommissioning of deepwater port structures located beyond the U.S. territorial sea, including deepwater LNG export facilities.

Sabine Pass Authorization – First Long-Term LNG Export Authorization

DOE granted the first long-term application to export domestically-produced lower-48 LNG to non-FTA countries to *Sabine Pass Liquefaction, LLC, (Sabine Pass)* in DOE/FE Order Nos. 2961 (May 20, 2011), 2961-A (August 7, 2012), and 2961-B (January 25, 2013). The LNG export volume authorized is equivalent to 2.2 billion cubic feet per day (Bcf/d) of natural gas for a period of 20 years. In the first of the *Sabine Pass* orders, DOE stated that it would evaluate the cumulative impact of the Sabine Pass authorization and any future authorizations for export authority when considering subsequent applications.

LNG Export Study

Following issuance of the *Sabine Pass* order, DOE undertook a two-part study of the cumulative economic impact of LNG exports. The first part of the study was conducted by the Energy Information Administration (EIA) and looked at the potential impact of additional natural gas exports on domestic energy consumption, production, and prices under several prescribed export scenarios. The second part of the study, performed by NERA Economic Consulting under contract to DOE, evaluated the macroeconomic impact of LNG exports on the U.S. economy with an emphasis on the energy sector and natural gas in particular. The NERA study was made available on December 5, 2012.

On December 11, 2012, DOE published in the *Federal Register* a Notice of Availability of the EIA and NERA studies, and inserted both parts of the study into 15 then-pending LNG export application dockets for public comment. An initial round of comments on the study ended on January 24, 2013, and reply comments were due February 25, 2013.

Comments to the LNG Study

In response to the Notice of Availability, DOE received over 188,000 initial comments and approximately 2,700 reply comments. Proponents of LNG exports generally endorsed the results of the two-part study, particularly the conclusion of the NERA study that increasing levels of exports will generate net economic benefits for the United States. On the other hand, comments filed by opponents of LNG exports raised a number of issues, including challenges to the assumptions and economic modeling underlying the two-part study and assertions that the two-part macroeconomic study should have further examined regional, sectoral, or environmental issues.

Use of Annual Energy Outlook Projections

On December 16, 2013, EIA issued its most recent projections for 2035 in the Annual Energy Outlook 2014 Early Release Overview (AEO 2014 ER). Compared to AEO 2013 Reference Case, total natural gas consumption for 2035 is projected to increase by 4.7 Bcf/d, from 78.7 Bcf/d to 83.4 Bcf/d. However, total domestic dry gas production is projected to rise by 13 Bcf/d of natural gas, from 85.9 Bcf/d to 98.9 Bcf/d (although this increase includes Alaska natural gas

production). Projections from the AEO 2014 ER reflect net LNG exports from the United States in a volume equivalent to 9.2 Bcf/d of natural gas. Of this projected volume, 7.4 Bcf/d are exports from the lower-48 states, 0.4 Bcf/d are imports to the lower-48 states, and 2.2 Bcf/d are exports from Alaska. This estimate compares with projected net LNG imports of 0.4 Bcf/d in the lower-48 for 2035 in the AEO 2011 Reference Case. The 2035 Henry Hub price in the AEO 2014 Early Release Reference Case is \$6.92/MMBtu, down from \$7.31/MMBtu in the AEO 2011 Reference Case (both in 2012 dollars).

When comparing the AEO 2014 ER and AEO 2013 Reference Case, the projections indicate that market conditions would continue to accommodate increased exports of natural gas. We also note that EIA's projection in the AEO 2014 Early Release Overview reflects domestic prices of natural gas that rise due to both increased domestic demand and exports, but that these price increases will be followed by "[a] sustained increase in production ... leading to slower price growth over the rest of the projection period."

LNG Export Applications Status

Consistent with the NGA, as of March 24, 2014, DOE has approved 35 long-term applications to export lower-48 LNG to free trade agreement countries in an amount equivalent to 37.96 billion standard cubic feet per day of natural gas. In addition, DOE has two long-term applications pending to export lower-48 LNG to free trade agreement countries. No worldscale liquefaction facilities in the lower-48 currently exist, one facility is currently under construction, and my office estimates that another 26 additional worldscale facilities are proposed to be built.

Most of the applicants seeking authorization to export LNG from proposed facilities to free trade agreement countries have also filed to export LNG to non-free trade agreement countries in the same volume from the same facility to provide optionality on the final destination country. The volumes of the applications to export to free trade agreement countries and non-free trade agreement countries are therefore not additive.

As of April 29, 2014, DOE has granted one final and six conditional long-term authorizations to export lower-48 LNG to non-free trade agreement countries in a total amount equivalent to 9.27 billion standard cubic feet per day of natural gas from five proposed liquefaction facilities and one under construction. As of April 29, 2014, DOE had 24 applications pending to export LNG equivalent to an additional 26.59 billion standard cubic feet per day of natural gas to non-free trade agreement countries.

DOE Path Forward

The Department will continue processing the pending non-FTA LNG export applications on a case-by-case basis, following the order of precedence previously established and set forth on DOE's website. During this time, the Department will continue to monitor any market developments and assess their impact in subsequent public interest determinations as further information becomes available.

Conclusion

In conclusion Mr. Chairman, I would like to emphasize that DOE is committed to considering the export applications as expeditiously as possible. DOE understands the significance of this issue — as well as the importance of getting these decisions right.

Mr. LANKFORD. Mr. Hochstein.

STATEMENT OF AMOS J. HOCHSTEIN

Mr. HOCHSTEIN. Mr. Chairman, thank you for having me appear before this committee. Ranking Member Speier, thank you and the members of the subcommittee. It is always good to be back here. As someone who served on the House Foreign Affairs Committee staff, it is good to be able to be back in the House, so I appreciate the opportunity, especially on this critical topic.

The hearing comes at a critical time. Today, the relationship between security and access to energy is drawn in sharp relief. With the illegal annexation of Crimea by Russia and its role in the unrest in Eastern Ukraine, we are witnessing the unacceptable and, frankly, shocking violation of the sovereignty and territorial integrity of one country by another.

The Department of State is not the agency responsible for the process of approving natural gas export licenses, and my colleague Chris Smith, from the Department of Energy, has just addressed that issue. But the crisis led many to argue that accelerated approval of LNG exports is the magic bullet to provide energy security to our European allies and partners.

While critically important, U.S. energy resources, including LNG exports, are just one tool among many that we can and are utilizing to address the energy security challenges in Europe and elsewhere. We have been working in many ways around the world to contribute to that energy security, and we will continue to do so in the weeks, months, and years to come.

There are renewed fears that Russia will use energy as a political tool, as it did in January 2009, when Russia cut off gas supplies to Ukraine. All Russian gas flows through Ukraine were halted, cutting off supplies to Southeastern Europe completely for 13 days. A shocked European Union began the process of moving towards diversifying its resources of energy and the routes by which the energy is delivered. The EU began to implement regulations and build infrastructure toward a common integrated and transparent energy market.

The U.S. has been working closely with the EU to prevent a repeat of the 2009 crisis. We established that year the US-EU Energy Council, an annual meeting co-chaired by the Secretaries of State and Energy to address strategic energy issues and forms of collaboration. The first meeting was held that year, in November of 2009; the fifth meeting was held just a few weeks ago.

What we have to take into consideration as we look at these issues is the global context in which we are living, and the supply-demand changes that have occurred around the world. First, the supply mechanism has changed from a small number of countries supplying the world to a much larger number of countries around the world supplying energy, both oil and gas. And in demand, while OECD countries were driving the demand until now, for the decades to come that demand will be driven by non-OECD countries, principally China, India, and Asia.

As we have worked with Ukraine and with Europe to address the energy security of Ukraine and of Europe as the downstream countries, we are looking, as Ranking Member Speier said in her open-

ing testimony, at not just the issue of LNG exports, but the issues that would require Europe to be able to address their own needs, and that means addressing the infrastructure shortages and shortfalls that Europe suffers from. With pipelines that go from Russia down south into Europe, to make sure that those are able to reverse flow so that they can supply Ukraine. The fact that Poland and Hungary have already been able to reverse their flows, and I am pleased to announce that two days ago a major deal was reached between Slovakia and Ukraine to reverse the flow, these are steps that could not have happened had we not learned the lessons from 2009 and have spent the last four to five years working with our EU partners to make those changes available and capable.

For example, the UE passed theirs, as a result of 2009, the Third Energy Package, which changed the regulatory framework. Without that, today the reverse flows into Ukraine would not have been possible.

But it is not enough to look at this from Russia to Ukraine and into Europe; we have to look at pipelines that go not just north-south, south to north, but east-west and west to east so that gas can flow. We have to make sure that there are LNG receiving terminals so that there is capacity to receive the LNG and that it is done in a way that is bankable and financeable.

But as we look at this, this is not just about the United States and its exports that will come in the years to come. This is, as I talked about before, the supply change. And I am going to get to what Ranking Member Speier said in her opening testimony. We are looking at Australia coming online with enormous amounts of natural gas over the next several years. Mozambique and Tanzania have made impressive discoveries, and they too will come online in the coming decade. Offshore, Israel is already delivering new gas to its domestic market, and is poised to become an exporter in 2017 or 2018. Same for Cyprus. Potentially, Lebanon, Egypt, and the rest of the Eastern Mediterranean. North Africa, South America, and other areas are all looking to become new producers.

So as we look at this, this is a global context that we have to understand how to address, and we are doing so today, together with the Department of Energy, Department of State, and the rest of the Administration, to ensure that we can be there to allow and to make sure that not only Europe is supplied, but that energy is used as an energy resource for cooperation, and not resource for conflict.

In conclusion, Mr. Chairman, LNG exports may become an important factor in assisting our allies and friends, but it is only that one factor, that one tool. And we have to work on all these other areas that I just mentioned in order to make sure that our commitment to energy security, as we did with the Baku-Tbilisi Ceyhan pipeline in the 1990s and as we are doing now with the southern corridor from Azerbaijan and other projects, to make sure that that energy security is achieved.

We are strongly committed to Europe's energy security and we will continue our joint efforts with the EU to make that a reality.

Thank you very much for allowing me to testify before you today.

[Prepared statement of Mr. Hochstein follows:]

**Statement of
Amos J Hochstein
Deputy Assistant Secretary for Energy Diplomacy
Bureau of Energy Resources
U.S. Department of State**

Before the

**Subcommittee on Energy Policy, Health Care & Entitlements
Committee on Oversight & Government Reform
United States House of Representatives**

**U.S. Foreign Policy and the Export of Domestically Sourced
Liquefied Natural Gas**

April 30, 2014

Thank you Chairman Lankford, Ranking Member Speier, and members of the Subcommittee; I appreciate the opportunity to be here today to discuss developments in international energy markets and how we are using our foreign policy tools, including our energy resources, to improve U.S. national security and the energy security of our allies and partners.

1. Today's Ukraine Crisis and the Energy Crisis of 2009

Mr. Chairman, this hearing comes at a critical time and while your focus is on the foreign policy implications of our domestic oil and gas production boom, this issue is difficult to address without discussing the broader global context of the national security environment and the role that geopolitics of energy are playing in it.

This is a time when the relationship between security and access to energy is drawn in sharp relief. With the illegal attempt to annex Crimea by Russia and the unrest in Eastern Ukraine, we are witnessing the violation of the sovereignty and territorial integrity of one country by another. It is shocking and unacceptable that this could take place on the European continent in this day and age.

The crisis in Ukraine has led many in Europe to seek accelerated approval of exports of liquefied natural gas (LNG) to European consumers, and many in Washington are considering policies that may facilitate exports as a means to directly bolster the energy security of our allies and partners. The Department of State is not the agency responsible for the process of analyzing and approving natural gas export licenses and my colleague from the Department of Energy will

address that process. In my testimony I would like to explain how U.S. energy resources, including LNG exports, are just one tool among many that the United States utilizes to address the energy security challenges that we are facing in Europe and around the world. The crisis that sets the tone for today's hearing also serves as an important milestone in the development of Europe's energy security – and the contributions that the United States has made, and continues to make, before any U.S. LNG exports reach the global market.

Ukraine's position as a transit country between Russia and the European Union has renewed fears that Russia would use energy as a political tool and revived memories of 2009. On January 1st of that year, as part of a gas payment dispute between the two countries, Russia cut off gas supplies to Ukraine. On January 7th, all Russian gas flows through Ukraine were halted for 13 days. Supplies to southeastern Europe were completely cut off; several other European countries were partially cut off. This event shocked the European Union, and raised the urgency for Europe to diversify not just its sources of energy, but also the routes by which that energy is delivered. In the years that followed, the European Union made great strides to advance energy security. With breakthrough legislation known as the Third Energy Package, the EU implemented regulations and built infrastructure toward a common, integrated and transparent energy market.

The United States has partnered with the EU to help prevent another energy crisis in Europe like that in 2009. After Russian gas deliveries through Ukraine to Europe resumed on January 20, 2009, the Administration proposed establishing the U.S.-EU Energy Council, an annual meeting co-chaired by the Secretaries of State and Energy to deepen the dialogue on strategic energy issues of mutual interest, foster cooperation on energy policies, and further strengthen research collaboration on sustainable and clean energy technologies. The first meeting of the Energy Council was held in November 2009; the fifth meeting was held on April 2nd of this year.

2. The Global Picture: Major Shifts in Demand and Supply.

Europe's efforts to reduce its import dependence on Russia and America's emergence as a nascent exporter are taking place within the broader context of changing global energy demand and supply.

On the demand side, we are seeing unprecedented growth from countries outside the Organization for Economic Cooperation and Development (OECD). Non-OECD countries are expected to be responsible for approximately 85 percent of the growth in total energy demand over the next few decades. Already, for the first time in modern history, the non-OECD markets are overtaking the OECD in oil, gas, and coal consumption. As a result, an increasing share of Middle East oil is destined for Asia – including, according to some estimates, at least three-quarters of the oil transiting the Strait of Hormuz. China is the world's largest energy consumer and alone consumes roughly half the world's coal.

On the supply side, production and delivery of energy is also changing dramatically.

Energy supply is no longer about a small number of the big energy producers, who push fuels in one direction to consumers via transmission systems they control. We are seeing new producers joining the club, large and small, veterans and newcomers, traditional hydrocarbons and increasingly affordable renewables, through an intricate web of pipelines, ships and power lines, moving energy in an increasingly global, diffuse market.

3. A New Era of Energy Diplomacy

Although global energy trade continues to change, the need for U.S. engagement has not. We live in an international global economy with interdependent energy markets. The term energy independence has become popular but does not reflect the reality in which we live. An energy disruption anywhere will threaten economic growth everywhere, including in the United States. It is in the common global interest to have adequate and diverse energy supplies. It is critical to our economies, our security, and global prosperity. In acknowledgement of these global shifts, the events of January 2009, and the growing critical role energy plays in foreign policy and national security around the world, then-Secretary of State Hillary Clinton created the Bureau of Energy Resources in 2011. I have been privileged to help build and lead the bureau since its creation. Our efforts reflect a new era of energy diplomacy and have resulted in a number of significant accomplishments around the world:

The global shifts are not limited to Europe. At the 7th East Asia Summit in 2012, President Obama announced the launch of the U.S.-Asia Pacific Comprehensive Energy Partnership along with the leaders of Brunei and Indonesia. The initiative works across existing regional fora to ensure affordable, secure, and cleaner energy supplies for the Asia-Pacific region. The Partnership focuses on four regional priorities: the emerging role of natural gas, regional markets and interconnectivity, renewables and cleaner energy, and sustainable development. With an estimated \$9 trillion needed in investment in electricity alone through 2035 to meet growing demand in the Asia-Pacific region, enormous potential exists for American companies to play an important role in the region's energy future.

Today's energy revolution is being felt around the world. Recent gas discoveries in Mozambique, Tanzania, and elsewhere in East Africa carry with them great potential for transforming their economies and future as well as playing a key role in the growing global gas markets. We are working to help ensure these discoveries are exploited in a safe, open, transparent manner to ensure the revenues create new prosperity for all the people in the region.

Another exciting area of new development is the Eastern Mediterranean. New discoveries of gas offshore Israel and Cyprus and great potential in Lebanon, Greece, Egypt, and the

Palestinian Authority have great promise for not only economic growth, but for new regional cooperation. In February of this year a State Department-facilitated landmark agreement was announced in which Houston-based Noble Energy will sell natural gas from Israel's offshore fields to Jordan starting in 2016. The deal is a strong first step toward providing Jordan with critically needed affordable energy supplies after losing supplies from Egypt due to repeated terrorist attacks on the Sinai pipeline and due to the changing nature of Egypt's production and consumption patterns. The deal could also provide a template for future energy agreements to strengthen relationships in challenging regions.

Mr. Chairman, as you know, Congress has recognized energy as an important piece of our diplomatic toolkit. In late 2011, Congress imposed petroleum sanctions on Iran. The implementation of these sanctions by the Administration has led to a 1.5 million barrel-per-day decrease in Iran's crude oil exports. Due to the broad U.S. engagement in energy diplomacy, we have been able to implement these sanctions while maintaining relative stability in the oil markets. This could not have been done without increased U.S. production and help from our friends and allies around the world.

4. Europe and Ukraine – What Is Possible Today

We have worked diligently to help Europe diversify its energy sources. The Southern Gas Corridor, an ambitious plan to deliver Azeri Caspian Sea gas to European markets, has been an Administration priority for years. Last year, after more than a decade of U.S.-led energy diplomacy in Central Asia, Turkey, and Europe, a final investment decision was made on the development of a pipeline that will bring 10 billion cubic meters of non-Russian natural gas from Azerbaijan to southern Europe by way of Georgia, Turkey, Greece, and Italy. The implications of the so-called Southern Gas Corridor on European energy security are real – in today's global energy markets, improvements in diversity of supply strengthen the resiliency of the entire region.

Today, Ukraine is one of our highest priorities. Due in part to energy diplomacy efforts with the EU since 2009, we have a framework for cooperation to speed our response in times of crisis. The commitment of the United States and Europe to support Ukraine was at the forefront of the April 2 U.S.-EU Energy Council. At that meeting, the United States and the European Union agreed to work together to help Ukraine in its efforts to diversify its supplies of natural gas including through reversing the flow of pipelines connecting Ukraine to its neighbors, increased gas storage capacity, and reforms to its energy sector.

I am pleased to mention that just two days ago, on Monday, April 28 in Bratislava, the governments of Ukraine and Slovakia signed an MOU for reverse-flow of gas – a deal which will allow gas to flow from west to east across the border in just a few months. Although the

volumes will be small initially, they will increase significantly over the next year and help Ukraine benefit from Europe's competitive energy market.

5. The U.S. Energy Transformation and Its Global Impact

The energy position of the United States has indeed changed, and the impacts are felt abroad as well as at home. Taken in the aggregate, these changes can be viewed as part of the broader shift in supply and demand that is taking place at the global level.

In oil: The United States has increased oil production by 1 million barrels per day (bpd) in each of the last two years, and we are on track to replicate that this year. Those increases have brought U.S. crude oil production to almost 8 million bpd, the highest level since 1989. As a result of these trends, net imports now account for just over 30 percent of U.S. oil supplies, compared to 60 percent in 2006. The United States is expected to remain a net oil importer, and will still be connected to global energy markets.

In gas: The shale revolution began with gas. Shale gas fields became commercial due to the application of increasingly effective drilling techniques. The United States has increased natural gas production by over 20 percent since 2007 because of growth from shale basins (shale gas now accounts for over one-third of U.S. natural gas production). Current projections estimate that unconventional gas – including shale gas, tight gas, and coal-bed methane – could make up more than 75 percent of U.S. natural gas production by 2030. The Energy Information Administration (EIA) now anticipates the United States will become a net exporter of LNG in 2016 and an overall net exporter of natural gas by 2018.

Although the State Department does not play a regulatory role in domestic natural gas or its export, the U.S. natural gas boom has already had significant ripple effects on gas markets. LNG from Qatar and Trinidad and Tobago, once destined for the United States, is being exported to other markets. As U.S. gas production has increased, our LNG imports have decreased. Those displaced volumes provided European markets with gas traded at a less expensive price than pipeline gas from Russia. This increased supply helped many utilities in Western Europe successfully renegotiate their existing supply contracts with Gazprom. Additionally, gas trading hubs in the U.K. and Austria are benefiting from a transparent gas system that is open to third parties and capable of multidirectional gas flows, thereby reducing the power of gas transportation monopolies to use natural gas exports as a political lever.

6. Conclusion

The United States is transitioning from being a natural gas importer to a net exporter. However, natural gas production and export remain only one aspect of a multifaceted diplomatic strategy.

Disruptions in global markets have a direct impact on U.S. security and economic priorities. We have a wide range of tools that we are applying to strengthen energy security in Europe and around the world.. In conclusion, Mr. Chairman, LNG exports may become an important factor in assisting our friends and allies in Europe to enhance energy security through diversification. But, this is only one factor and one tool in achieving that goal. As I have demonstrated today, we are strongly committed to Europe's energy security and will continue the successful joint efforts with the EU to make that a reality.

Mr. LANKFORD. Thank you.

I will begin with five minutes of questioning. We will go around the dais and then we will do a second round in just a moment.

I would like to first enter, without objection, Ambassador-at-Large for Energy Security, Dr. Anita Orban from the Ministry of Foreign Affairs in Hungary, a statement that she has written about this same hearing and some of the issues. Without objection, so ordered.

It shows a statement in this that I want to just be able to read to you quickly. She testified on the Hill March the 25th. She said, I used \$400 as an example of how unrealistically high Russia may raise the price of 1,000 cubic meters of gas delivered to Ukraine if it chooses to use gas as an economic weapon. This was before they invaded Crimea. In fact, Moscow went above that number with a wild number and now quotes \$485. Now, the current price is around \$268. Four times the amount that is the Henry Hub Price.

Given that Ukraine had difficulty setting its invoices even when the price was 268, the new price seems well beyond what Kiev will be able to cover. Ukraine may face a winter without gas supplies from the east and will have to either buy gas from the west or cave in politically. This is the reality that is on the ground.

One other statement that she makes I think is pertinent. On April 11th, Russian President Vladimir Putin sent a letter to 18 European countries, warning them about potential supply disruptions in the winter. This is hardball and this is one of the situations that we have to be able to respond to, and respond to with clarity in the process.

I say one final statement. Let me read one final statement, as well, as she makes this. She said U.S. LNG export liberalization is no panacea in the short-term. The gas could not be delivered in large volumes to Ukraine immediately. It will not save Ukraine and possibly other parts of Central Eastern Europe from a very cold winter in 2014. Yet, it makes the medium-term solution very clear and this prospect would have immediate impact on pricing and maybe even availability.

Her request is interesting. Her request is if we will begin to act, it at least sets a marker out there that shows Russia that we are serious and they know that we are moving.

Two years ago, when we started the process of these conversations, I had two different individuals internationally that came to visit my office immediately, the Japanese and members of Parliament from Ukraine. Two years ago. And their question was the same, how quickly could we get American natural gas. Since that time period multiple other countries have come to be able to visit with me with the same question, how quickly could we get American natural gas.

This is one of those conversations that we need to be able to determine. I understand full well we have the first responsibility to take care of America and Americans. That is in our national interest. That is our first responsibility. But when there is economic benefit and there is also diplomatic strength that comes from the export of energy, this is one of those issues I continue to ask why is it taking so long in the process.

So I know that was a long statement for me to make as well.

Mr. Smith, let me start this conversation. It has taken, depending on the different permit, sometimes it has taken 11 weeks, sometimes it has taken 8 weeks, sometimes it has taken different times to be able to actually get a permit one after another here. So the initial one, obviously, the Sabine Pass approval, took approximately 8 months after the application. Well, we have had some now that are 29, 27, 23 months after the application. Is this process getting faster? I know you are working through the process. Is it getting faster? Is the Department of Energy getting more efficient in the approval process?

Mr. SMITH. Thank you for the question, Mr. Chairman. First of all, as you note, we are working through the queue on a case-by-case basis. The first application we did obviously took some more time because we had to do the full study to look at a cumulative impact. Since then a lot of scrutiny has been made on the time between each application. One might be 9 weeks, one might be 11 weeks, one might be 7 weeks.

What I can say to that is that we have a great team of people working to write these orders. Our focus is on making sure that we get the public interest appropriate and we get it right and that we get an order that is going to withstand the scrutiny that is it sure to receive. So our task is to make sure that we keep moving forward as expeditiously as possible. There is not a time line that we are on; there is not a clock that we follow. Essentially the team looks at each issue. Each of the orders is different, so they are going to take different amounts of time because they will require different analyses. But once each order is done, it is released by the team and we move on to the next order. So that is the process that we have been on, and we are moving through the queue.

Mr. LANKFORD. Let me interrupt real quick because I want to be able to transition and let other folks speak. So at this point you don't have a requirement on your team whether they take two years or two weeks to work through the next permit? It is just whenever they get done at whatever speed?

Mr. SMITH. The requirement is to move forward as expeditiously and professionally as possible, but to make sure that they get the analysis right.

Mr. LANKFORD. But it may take two weeks or it may take two years.

Mr. SMITH. It takes the time that is required, Mr. Chairman. It is not a time-bound requirement; it is a requirement bound on the necessity to make sure we make a good public interest determination.

Mr. LANKFORD. I am very aware there is not a time bound on it, but the issue is the clock is ticking internationally. That is part of the issue; it is not only domestically, but internationally.

Let me move on. I want to be able to honor everyone's time today with that.

Ms. Speier.

Ms. SPEIER. Thank you, Mr. Chairman.

Let's just address the likelihood that liquefied natural gas will go to Europe if it is manufactured here in the United States. Most of these companies are domestic companies with shareholders, correct? And do they not have a responsibility to acquire the highest

price for their gas in order to maintain a profit that is appropriate? Let's ask Mr. Smith and Mr. Hochstein.

Mr. SMITH. Thank you for the question. Certainly, I think you raise the point that once approved by the Department of Energy, the Department of Energy does not determine where the gas will go; it is going to be determined by the companies that receive the authorizations. And, indeed, those companies will certainly move to send the gas to the place that has the best return for orders.

Ms. SPEIER. What is the price differential between Europe and Asia?

Mr. HOCHSTEIN. The price of natural gas, as you state, is not like crude oil, where there is more or less of a balanced price around the world; there is a difference. So whole people talk about Henry Hub as the American price, Europe is about, let's see, 460 or so traded these days, and Europe is anywhere between \$10 and \$13, and Asia is anywhere between \$16 and \$18. Then you have different regions within that that probably are a little bit different.

But I think it is important to note that you can't simply take one price in one area and make the transport of that equal. So if you take the price from the United States LNG exports that are approved here, you would have to add the cost of the liquefaction, the transport insurance, the re-gasification. Probably the kind of increase in price that you would have to add on puts it right in the range of what prices are today in Europe. So it wouldn't be much above it, but it wouldn't be much below it, either.

Ms. SPEIER. So the likelihood of it going to Europe is not nearly as great as it is to go Asia, in any case?

Mr. HOCHSTEIN. I think as Mr. Smith said, we, as a Government, don't tell our companies who to sell it to.

Ms. SPEIER. Exactly.

Mr. HOCHSTEIN. But I think you are right that the companies are going to make a decision where to sell it to. But, if I may, I think the issue here is not where we send our gas. I think this is about a global market. And wherever our gas will go, and it is likely to go to wherever the traders feel that they need to put this gas based on a variety of factors, including price, it will make a difference in all other regions. So it will make a difference, as I think Mr. Smith said in his opening testimony. We have already made an enormous impact on the market by removing, if you look at the expectations of what we would be importing in 2014 just a few years ago, that delta is enormous.

Ms. SPEIER. Okay, Mr. Hochstein, I want to try to get a couple more questions in.

One of the points that I think hasn't been made well enough yet is that the infrastructure in Europe to receive the LNG is not yet robust, and that these import terminals need to be built. Do we know how many need to be built? Do we know how much that would cost? Is that something that the United States would or could invest in?

Mr. HOCHSTEIN. We are working with the EU on that issue for the last several years. There is quite a bit of capability at the moment that is full. There is more that is being built. The EU has had some regulatory challenges in getting some of these through. There is one in Lithuania that is going to be built; there are some

in Italy. But there has also been a sharp decrease in demand for LNG in Europe over the last couple years partly because the price of coal has come down quite a bit in the United States and made coal cheaper in Europe, so there has been a transition from gas to coal. There have also been very warm winters for the last couple years that have affected demand. So you are right. I don't know that we would be as investors, that is for the private sector to do, but we are working with the EU to figure out how to make these financeable and bankable so that they are more likely to be built.

Ms. SPEIER. All right, according to the Center for Strategic and International Studies, saving Ukraine from its gas-related diplomatic disadvantage with Russia is both a matter of money and political reform. They say the only way to extract Ukraine from the immediate payment crisis is to provide money for Ukraine to pay down its debts. However, that does not address the fundamental problem that resulted in Ukraine's indebtedness in the first place: massive corruption, opaque markets, and poor pricings.

Mr. Hochstein, do you agree with that view, and what do you think we should be doing about that?

Mr. HOCHSTEIN. I do largely agree with that view. We have to look at this in a number of ways. The IMF package is hopefully going to be approved fairly soon. That will, with it, release American money that Congress has authorized, as well as European EU money. The need to pay down the arrears immediately is urgent so that additional supplies can come and we don't have a cutoff. But we have to address the reform of the industry. This is an opportunity, this crisis is an opportunity for Ukraine to open a new page and to address the reform that the sector desperately needs so that we don't end up in the same place that we are today a few years down the road, after paying the debt.

Mr. LANKFORD. Mr. Walberg.

Mr. WALBERG. Thank you, Mr. Chairman.

Mr. Smith, as I understand it, companies that are seeking to export LNG today are required to go to the Department of Energy seeking a determination on public interest. Could you tell us the criteria that the Department of Energy uses to determine that term, public interest?

Mr. SMITH. Thank you, Congressman, for that question. So the Natural Gas Act essentially creates a rebuttable presumption that exports are in the public interest unless the Department determines that approving such application would be deleterious to the overall public interest. The law, however, does not give a specific definition of the public interest; that has been left to the Department to interpret.

So we have a wide range of criteria that we use when we are looking at public interest. We look at impact on the economy; we look at job creation; we look at energy security; we look at prices; impacts on consumers; foreign issues; issues of international affairs. So there is a very broad range of factors that we use.

Mr. WALBERG. Are any of the factors weighed differently?

Mr. SMITH. Well, one thing that we don't have is a formula or matrix that we plug numbers into and get an answer out. Essentially what we allow for is a period of public comment in which the public can opine on these, and we think that is a very important

part of the process. We then have to make a qualitative decision on all the arguments that are made for and against LNG exports. In fact, when you see one of the orders that we have written, they are extensive documents. We are required to make very clear and transparent the reasoning that we make for each one of these applications, so we have to talk about the arguments that are made and either accept or rebut each of those individual arguments.

Mr. WALBERG. Are international considerations weighed in any different way? Are they more significant, less significant? Do you work with the Department of Energy on making international determinations?

Mr. SMITH. With the Department of State, certainly. Yes, Congressman, we work very closely with the Department of State on all issues. But in terms of international considerations, you will see in the most recent order that we put out there is a very specific reference to the importance of energy security for the United States allies and trading partners, and that is something that we do take into consideration, it is something that is very important to us.

Mr. WALBERG. But not heavier than any other factors?

Mr. SMITH. Well, Congressman, I think that all these factors are important. I mean, we care about impacts on American consumers; we care about prices; we care about international impacts. So all these are important.

Mr. WALBERG. Is the process working as well as you would like it to, in your determination?

Mr. SMITH. I think that the team is doing an excellent job of making very important long-term decadal energy decisions in terms of looking at public interest, so I think the team is going a good job.

Mr. WALBERG. How many are awaiting approval right now, the projects?

Mr. SMITH. Thus far we have approved 7 projects. I think we have more than 20 that are waiting in the queue. So to date we have approved 9.27 billion cubic feet per day of exports, and we are working through that queue on a case-by-case basis.

Mr. WALBERG. Thank you.

Mr. Hochstein, if you could tell us about the Unconventional Gas Technical Engagement Program and the Energy Governance and Capacity Initiative. Give us a little background on that.

Mr. HOCHSTEIN. For the last several years the Department of State and our offices have worked together with the Department of Energy and other agencies with friends and allies around the world who have sought to look into the possibility of addressing their unconventional and shale resources. What we have done is we don't encourage any country to do or not to pursue unconventional, but if they are going to do so, to offer them the support of understanding the regulatory mechanisms to make sure it is done in a safe and environmentally sustainable way. And for that we have a program that supports a number of countries. We worked very closely with Poland. We actually started working with Ukraine before the crisis, about a year ago, and we are looking at expanding that program now to be able to bring about more resources there.

The EGCI program that you mentioned, Congressman, looks at the governance of oil and gas sector overall to make sure, again,

that as we see new countries coming online as new producers, that they are not suffering from the same trap that some others have done before them, and to make sure that those resources are made available to all the people of that region and that country, and that it is done with a governance structure.

Mr. WALBERG. Are you achieving that goal, in your estimation, right now, like Ukraine and the situation?

Mr. HOCHSTEIN. Yes. I think on the unconventional, yes, I do. It is a very difficult task, but I think that it is important that countries make the decision on unconventional based on science and not on emotions, and, if they are going to do so, that we support them in being able to develop and increase their production from conventional and unconventional resources.

Mr. WALBERG. Thank you.

Mr. LANKFORD. Mr. Cardenas.

Mr. CARDENAS. Thank you very much, Mr. Chairman.

In order to expedite LNG exports, environmental concerns and what is in the public interest, it is my understanding, are involved in the process. Section 3 of the Natural Gas Act requires companies seeking to export natural gas to obtain approvals from the Department of Energy, Office of Fossil Energy, and the Federal Energy Regulatory Commission. Under this section, no export of natural gas will be permitted unless it is consistent with the public interest.

So, Mr. Smith, can you describe the various approvals that are required and what the roles of each agency are?

Mr. SMITH. Well, thank you very much for the question, Congressman. There are two primary agencies that are involved in this process, there is the Department of Energy, which essentially grants the authorizations to export the molecule, and then there is the Federal Energy Regulatory Commission that grants permission to actually build the plant. So those are two different processes. They are separate, but they are both critical and important to get a project up and running and exporting natural gas.

Mr. CARDENAS. Okay, thank you. Mr. Smith, what are the specific criteria for making the public interest determinations?

Mr. SMITH. Thank you for the question, Congressman. There is a wide range of criteria that we use when we are looking at each one of these applications on a kind of case-by-case basis. We have to look at a wide range of factors that are important for American consumers and American industry and our national security, so we look at energy security, we look at supply availability, we look at environmental impacts, we look at international effects, we look at prices, impacts on consumers, on industrial customers. So those are all things that we have to consider for each and every one of these applications.

Mr. CARDENAS. Okay, thank you.

Mr. Hochstein, are you aware of any provision under the public interest determination for benefitting U.S. foreign policy?

Mr. HOCHSTEIN. We at the State Department are not involved directly in the approval process, but, as Mr. Smith said, the Department of Energy and the Department of State work very closely together and I think we share information, and when they make their determination they have our views in mind.

Mr. CARDENAS. Okay.

Mr. Smith, what, if any, environmental determinations does the Office of Fossil Energy make in determining the public interest?

Mr. SMITH. So that is going to be on a case-by-case basis depending on the application that we are looking at, but we are compelled to look at a wide range of issues; where the gas is coming from, how it might impact local communities. So those are things that are considered.

Mr. CARDENAS. And what about other agencies?

Mr. SMITH. Well, the Federal Energy Regulatory Commission, the FERC, also has to do an environmental analysis and, in fact, we are a core operating agency in their environmental process that looks at the impact of the terminal itself, the footprint of the terminal, and the impacts of actually constructing the facility itself. So we are a coordinating agency with FERC in that process, so we work together in that way.

Mr. CARDENAS. Okay. Mr. Smith, would you describe the involvement of these processes as very simplistic or complicated?

Mr. SMITH. I would certainly say it is an important and complicated decision, and we have processes that match the gravity of the decision we have to make.

Mr. CARDENAS. For example, if somebody were to put in an application in January of 2010 and then, all of a sudden, somebody puts in what looks to be, on the face of it, a similar application in January of 2014, would you say that there are some variables that may have changed between those two?

Mr. SMITH. There certainly would be variables that would change. Just temporally factors changes, and each of the individual applications will have factors that might be different. So we have to consider the comments that are made by the public in this public and transparent process, and we have to consider each of those on a case-by-case basis.

Mr. CARDENAS. For example, in a hearing like this, do you imagine that in 2010 somebody would have mentioned Ukraine, Ukraine, Ukraine; whereas, now they may be mentioning it quite often? Is that a variable that perhaps complicates it a little bit more?

Mr. SMITH. That certainly is something that has changed dramatically over the course of the past few months.

Mr. CARDENAS. Yes. One of the things that I find fascinating is that, a lot of times, when we have public hearings like this, people like to try to force the issue to be simplified more than it possibly can be. I mean, I got my degree in engineering, and the one class that I remember the most and that apply in almost everything that I have done since I have left college is something called feedback systems. Simply put, it is a class of every engineer of every kind takes as a freshman and it basically explains that what goes in and what comes out is very different based on what happens in between, and no feedback system is identical to another. And it seems like that is the kind of thing that departments have to deal with on a daily basis.

I want to thank you very much for doing a very good job of simplifying it as much as possible so that we in the public can under-

stand how complicated it is and how important it is. Thank you so much.

I yield back my time.

Mr. LANKFORD. Mr. Jordan.

Mr. JORDAN. Thank you, Mr. Chairman.

Mr. Hochstein, when can we expect a decision on the Keystone pipeline?

Mr. HOCHSTEIN. Sir, unfortunately, I can't answer that question.

Mr. JORDAN. Do you know when the application for the Keystone pipeline was filed?

Mr. HOCHSTEIN. I don't have the date in front of me, sir.

Mr. JORDAN. Six years ago, September 2008. When do you think we can expect a decision?

Mr. HOCHSTEIN. The process in the Department of State, as you know, is ongoing.

Mr. JORDAN. Are you involved in that decision?

Mr. HOCHSTEIN. I am personally not involved in the process; my office is.

Mr. JORDAN. You are the Deputy Assistant Secretary for Energy Diplomacy. Big title. Diplomacy in the title and you are not directly involved?

Mr. HOCHSTEIN. I think that we have different people working on a variety of different issues. Obviously, I am part of the leadership of the Bureau, so involved in that sense—

Mr. JORDAN. Mr. Hochstein, are you aware the EPA's final report was released clear back in 2011, three years ago, stated there were no significant impacts on the environmental side? Are you aware of that?

Mr. HOCHSTEIN. Yes, I am, sir.

Mr. JORDAN. And the folks who are going to make the decision, are they aware of that at the State Department?

Mr. HOCHSTEIN. I believe they are, sir.

Mr. JORDAN. Are they aware that, two and a half years ago, Congress sent the President a bill saying, hey, make a decision? The President delayed that and said we want to wait for the Sand Hill issue to be resolved. And you are aware that that has been resolved, Mr. Hochstein?

Mr. HOCHSTEIN. I am, sir.

Mr. JORDAN. And the people who are making that decision are aware that it has been resolved?

Mr. HOCHSTEIN. I believe people are aware of a variety—

Mr. JORDAN. Are they aware that the governor of the State was initially against it, now he is for it?

Mr. HOCHSTEIN. If I may, Congressman, I think that as the process continues and we look at a variety of these different issues that are affecting this decision—

Mr. JORDAN. Do you think we can get a decision before this year is over?

Mr. HOCHSTEIN. I can't answer that directly.

Mr. JORDAN. Then you would meet the six year time frame. If you get it done before September, you have done it in six years.

Mr. HOCHSTEIN. Congressman, if I may, one sentence. I think I can give you what I think is happening at the moment, and that is that as we have new data coming in, such as the decision of the

court in Nebraska, we are not stopping the process, we are not suspending the process, the process is ongoing.

Mr. JORDAN. Do you know The Washington Post said that waiting any longer—and this is not Jim Jordan, this is not The Washington Times, this is The Washington Post, said to not make a decision is absurd and laughable. Again, not Chairman Lankford, not members on the Republican side; The Washington Post. And it kind of is six years. And you are telling me you don't know if you can get it done before September of this year to meet the six-year time frame?

Mr. HOCHSTEIN. What I am saying, Congressman, is as we are trying to make the process move as expeditiously as possible—

Mr. JORDAN. No, that cannot be true. That cannot be true. You are trying to make it move as expeditiously as possible. The Washington Post says it is absurd not to make a decision now. It has been almost six years. You can use any other adjective you want to use, but expeditious is probably the wrong one to use.

Mr. HOCHSTEIN. We have a significant and overwhelming volume of public comments that we are going through. We have a court decision in Nebraska that just was announced just a few weeks ago that has to be addressed, as well, just on the root—

Mr. JORDAN. But my point is when. My point is when. Or maybe a better question is will you ever make a decision.

Mr. HOCHSTEIN. Yes, we will make—

Mr. JORDAN. You will make a decision at some point? Okay, well, that is a step in the right direction, because there are some people who are starting to think there is never going to be a decision. Now, do you think it will happen—let's take this date. Do you think it will happen before the November elections this fall?

Mr. HOCHSTEIN. Sir, I can't—

Mr. JORDAN. Is it likely to happen before the November elections this fall?

Mr. HOCHSTEIN. As I was trying to say, sir, I can't—

Mr. JORDAN. Do you want it to happen before the November elections this fall?

Mr. HOCHSTEIN. Did you want me to answer, sir?

Mr. JORDAN. I want you to answer that last one first, if you could.

Mr. HOCHSTEIN. Okay.

Mr. JORDAN. Do you want it to happen before the November elections?

Mr. HOCHSTEIN. I would like to be able to go through the process in the way that we are required to do, addressing all the issues that have come before us, including the recent data. Had you asked me this question a few weeks ago, before the court decision in Nebraska, we would have been in a different situation. I think what we are trying to do is—

Mr. JORDAN. The Washington Post used the terms absurd and laughable, knowing about the court issue, Mr. Hochstein. You are aware of that, correct?

Mr. HOCHSTEIN. I am aware of what The Washington Post said. They don't speak for me and I don't always agree with what The Washington Post says.

Mr. JORDAN. Let me just ask you this. Will there be a decision before the November elections of this year?

Mr. HOCHSTEIN. As I said, Congressman, I can't stick to a specific time line of when this decision will be made.

Mr. JORDAN. Yes or no, do you, as Deputy Assistant Secretary for Energy Diplomacy, want there to be a decision before the November elections this fall?

Mr. HOCHSTEIN. I would like to be in the position where we have done all the work that we are required to do to be in a position in the time line that we can do. If that is before the election, then I hope that that is done. But what I cannot say is whether or not we are going to be able to make that time line. We are trying. We have a lot of people working on this. There are a number of factors that we are looking at, including the enormous volume of—

Mr. JORDAN. We want you to try harder. It has been six years. We want you to try harder. Frankly, we want a decision yesterday, but we know that is not going to happen. So, at a minimum, it makes sense the American people could know about this before an important mid-term election.

With that, I yield back, Mr. Chairman.

Mr. LANKFORD. It is becoming increasingly apparent that to stop any permit, you just flood the office with public statements and everything stops. At some point leaders have to make decisions.

With that, I recognize Ms. Duckworth.

Ms. DUCKWORTH. Thank you, Mr. Chairman.

Let's return back to the topic of today's hearing, which is liquefied natural gas. The crisis in the Ukraine is yet another reminder of how energy independence and our national security interests are closely tied. Countries like Russia have shown, obviously, that they are more than willing to use energy as a weapon. Natural gas exports have the potential to not only provide significant economic benefits to our Country's national security interests, but can also advance our national security interests and increase energy security.

While this discussion of the international picture of energy security is important, I want to focus a little bit on the domestic side and what these effects can be for our domestic consumers of LNG.

Mr. Smith, studies that the DOE has commissioned have found that the export of natural gas will have a net benefit on our economy and that there is significant potential here for bringing more wealth to our Country and creating more American jobs, something I think we all agree with. The Gas Technology Institute, a not-for-profit research lab that I am proud to have in my district, has been at the forefront of developing technologies that make natural gas development safer, more efficient, more environmentally sustainable, and in turn have really helped to make the natural gas success story one of our wins in our domestic industry.

Mr. Smith, do you see that efforts and capital investments in exporting more natural gas will also help to develop greater use of natural gas domestically, for example, the use of LNG as transportation fuel or to meet its domestic demand for its use to generate electricity?

Mr. SMITH. Well, thank you very much for the question, Congresswoman. First of all, the Department of Energy has a long re-

relationship with the Gas Technology Institute, and that relationship has actually been very instrumental in developing many of the technologies that have led to this increase in our domestic production of natural gas.

In terms of the interaction between LNG exports and domestic use, if the United States does move forward to export additional quantities if these terminals are built by the private sector, it is essentially going to put greater demand on our domestic supply here domestically, and that is going to have impacts on a variety of things, and that is what we look at in a public interest determination.

In terms of exporting LNG increasing the use of liquefied natural gas for transportation, I don't see a strong correlation between those two issues; I think they are driven by different factors. But, indeed, we are seeing a greater use of natural gas in the transportation sector. Particularly in fleet vehicles we are seeing that being picked up right now, and we think that is important; it creates greater options for American consumers and American businesses. It helps to reduce greenhouse gas emissions, so we see that as being very positive.

Ms. DUCKWORTH. I also represent, Mr. Smith, a lot of small manufacturers. I have the largest concentration of tool and dye manufacturers in the Nation in my district, for example, and many of the folks I have talked to in domestic manufacturing have expressed real concerns that increased exports will lead to price increases at home and, in turn, harm our businesses and consumers. What effect does DOE expect natural gas exports to have on the domestic manufacturing sector's consumption and the prices that we must pay domestically for natural gas?

Mr. SMITH. Well, thank you very much for that question, Congresswoman. We are certainly concerned about consumers in Poland and Ukraine, but we are also very concerned about consumers in Illinois and Ohio and Oklahoma. So we have to take both into consideration, which is why these public interest determinations are indeed complicated.

The Department of Energy has commissioned a number of studies that have looked at price impacts significantly. The NERA study that was done before this had been passed export, so it showed, in most cases, a modest impact on industry; it showed a modest impact on consumers, but one that we do have to take into consideration and balance against the benefits of LNG exports, balance of trade, job creation in producing States, greater production, other things. So it is a balancing act that we have to show, but we certainly are interested and concerned about potential impacts on consumers and, importantly, on those businesses that use natural gas to create jobs. So that is a very important factor in our considerations.

Ms. DUCKWORTH. Thank you. I have real concerns that our foreign manufacturing competitors don't take advantage of our cheap natural gas prices at the expense of our domestic manufacturers. Thank you.

I yield back.

Mr. LANKFORD. Mr. Woodall.

Mr. WOODALL. Thank you, Mr. Chairman, and thank you for holding the hearing. I would like to focus a little bit more on the domestic side of that for a moment.

I represent the State of Georgia, Mr. Smith, where I am told, depending on the day of the week, Southern Company, our utility down there, is either the number one, number two, or number three consumer of natural gas in the Nation; and yet Southern Company has come out in support of LNG exports as part of that national mix.

But our pipes are full in our part of the world; we can't get any more gas in our infrastructure. I look at the map on the EIA Web site of where the natural gas is coming from and I am thinking, man, how in the world are they getting that stuff out of the Bakken. I listen to that conversation that Mr. Jordan just had here and I think what is the impact that prices have on domestic manufacturing is going to be dramatically different if we have an infrastructure that can get every diesel gallon equivalent of natural gas out of the Bakken and down into the great State of Georgia than if we don't have that infrastructure in place.

Talk to me about what kind of infrastructure needs to be created, which I suspect will be dominantly pipeline infrastructure, in order for the American consumer and our exporters to be able to maximize the use of our natural resources.

Mr. SMITH. Thank you, Congressman, for that question and a lot of really big issues there. First of all, I will mention that the Department of Energy has a very important collaboration with Southern Company. One of the most important demonstrations of carbon capture and sequestration is being done in Kemper County in collaboration with Southern, so that has been a really important initiative that has the potential to benefit both the company here and internationally.

In terms of the infrastructure question, that is actually a really big topic. When we look at the growth of shale gas and the success that we have had here in the United States versus the challenges that you have in Europe, the challenges that you have in China, one of the big factors that was in our favor here in the United States was the fact that there was already a very robust infrastructure in place such that, as fields were drilled, you had to wait to get that gas to market, and that, indeed, is built and expanded by the private sector as new gas is developed.

There is the potential for infrastructure to lag. The resource in areas in which you have very rapid growth, and we have seen a bit of that in North Dakota, we have seen a bit of that in South Texas, but overall there is certainly a very direct profit motive to build these infrastructure facilities that are necessary to make sure that we get this energy to the consumers that are going to be using it, and we believe that is generally happening.

Mr. WOODALL. And do you believe that profit motive exists irrespective of the answer to the LNG exports question?

Mr. SMITH. Certainly. I mean, I do not see LNG exports as being the single factor that determines whether or not private industry builds the infrastructure that we need to get gas to markets.

Mr. WOODALL. So when I see natural gas being flared off around the Country due to a lack of infrastructure, clearly either the moti-

vation is not there today because of low gas prices or the cooperation is not there today to go through the permitting process to get that infrastructure installed.

Mr. SMITH. Well, that is actually a big question, Congressman. I mean, there is a challenge when you have lots of associated gas being produced along with oil in places where the oil is valuable and the gas is a byproduct of the oil production. So if you are in a situation where the infrastructure would be expensive to build, sometimes it is difficult for companies to justify the expense of building that infrastructure when they have the option of glaring the gas instead of building infrastructure to take it to market. So there is a market inefficiency there somewhere, but certainly State regulators and industry are working together to try to make that work better.

Mr. WOODALL. But from a DOE perspective, DOE is just willing to let those market forces be at play if those market forces require that we flare off our natural resources to no benefit of the consumer, fair enough, and if those market forces require that we need to build a pipeline to get those resources to consumers, then they would be supportive of that as well?

Mr. SMITH. Well, I wouldn't characterize that as a matter of willingness. I mean, the Department of Energy has a mission, so we are the technology organization. I oversee the National Energy Technology Laboratory that does much of the R&D both intramurally and with industry and academia that leads to solutions for environmental sustainability and safety. I think we are working together with State regulators in some cases, but there is a question of oversight or some of these questions, and a lot of them are complex and involve multiple market actors in the private sector.

Mr. WOODALL. Speaking on behalf of the State that gave America the president who created the Department of Energy, we support your mission of creating a safe and sustainable structure here in the Country that hopefully will not only lead to the manufactures that Ms. Duckworth talked about, but really change our balance of trade with the world.

Mr. Chairman, thank you again for holding the hearing. I yield back.

Mr. LANKFORD. Thank you.

Ms. Norton.

Ms. NORTON. Thank you, Mr. Chairman. You are holding this hearing at an interesting time when there is a lot of talk internationally about natural gas and perhaps new opportunities, new marketing opportunities here, where we see very low prices even given the technology and environmental challenges. So my question really is for Mr. Hochstein.

Mr. Hochstein, I promise to give you time to answer my questions.

You hear much of it off the top of the heads of people talk about our natural gas supplies being of aid to Europe and even Ukraine during the crisis that Ukraine is now experiencing. According to figures I have, Europe gets a quarter of its gas from Russia and half of that, and that was really news to me, half of that passes through Ukraine.

We remember that in 2009, early in 2009, the pipelines were shut down through Ukraine. What was the reason for that again, please?

Mr. HOCHSTEIN. There was a price dispute between—Ukraine had not paid debts and the Russians shut down the gas supply to Ukraine first, and then to the rest of Southeastern Europe through Ukraine a few days later.

Ms. NORTON. So they didn't have much of an effect on Europe at that time because of the short duration?

Mr. HOCHSTEIN. It had actually a tremendous effect in both 13 days of no gas in the dead of winter. And Europe uses gas primarily for heating, so the timing was not accidental.

Ms. NORTON. What did it do, increase the price?

Mr. HOCHSTEIN. What it did—

Ms. NORTON. I mean, was there real scarcity going to Europe?

Mr. HOCHSTEIN. It lasted 20 days in total, 13 days for most of Europe; and, as a result, what it really did was drove home the realization of the vulnerability that Europe has in its reliance on Russian gas and its need for diversification. Because it only lasted 13, the pain was short-lived.

Ms. NORTON. Well, does that mean that Europe is less dependent on Russia today? Did it diversify?

Mr. HOCHSTEIN. Europe did a number of things and we worked very closely with Europe for the last five years to do that. They are less reliant today on Russia, while still are extremely reliant and they will be for a long time to come. But because they passed the Third Energy Package, which required that the destination clauses be gone, it meant that when Russia exports gas into the EU, the first country of transit, let's say Germany or Ukraine or other EU countries, could not say, they couldn't dictate you may not pass this on without my permission to another country. So what it allowed it to do is the minute the gas comes into the EU, it is now EU gas and can be transferred further.

So as we talked before about reversing the flows from Poland, from Hungary, from Slovakia into Ukraine, that would not have been possible in 2009 because of the regulatory structure that was in place. So by working with Europe to get the regulatory structure there, making some investments, getting them to make investments in infrastructure, they are less reliant today. But as Russia will continue to be a supplier into Europe, there is more we can do together to make sure that that reliance is diminished, and quite significantly.

Ms. NORTON. Well, is it, and forgive the pun, a pipedream for Americans to see themselves in anything like the near future providing natural gas to Europe, and would that have any effect on our domestic market or do we have so much that it would simply mean a new market and a new, perhaps, reduction in the trade imbalance if we were able to do that?

Mr. HOCHSTEIN. I think that the United States has a role to play in this and that our exports are an important factor—

Ms. NORTON. We are not exporting at all now, are we, natural gas?

Mr. HOCHSTEIN. Today we are not exporting. We do not have any facilities to export that are ready yet.

Ms. NORTON. That is what I mean. When we hear people talk about our becoming a supplier, that would mean a large and immense effort to construct the infrastructure to do so.

Mr. HOCHSTEIN. Yes, that is true, but some of that is already in train, and the first one will come online in about 18 months from now. I just would mention that the gas that has already been approved by the Department of Energy is about half the amount of gas that Europe imports annually today. So it is an enormous amount of gas that has already been approved, but the market forces have to be there to build the facilities that have been approved.

Ms. NORTON. Thank you very much, Mr. Chairman.

Mr. LANKFORD. Thank you.

I am going to open this up for open conversation on this, so anybody can jump in on any point.

I just need to get some clarification there. You had mentioned we are not exporting natural gas now. Would you include Canada, Mexico, or off the Kenine Peninsula of Alaska in that we are not exporting natural gas comment?

Mr. HOCHSTEIN. I meant to say LNG of the ones that have been approved through this process. Clearly, Alaska and the pipelines to Canada and the narrow region—

Mr. LANKFORD. Okay, so we are a net exporter already of natural gas, and we do LNG off the Kenine Peninsula at this point. But we are exporting, not importing, natural gas.

Mr. HOCHSTEIN. We are also importing natural gas today. We are not a net exporter yet, but we are poised to become one.

Mr. LANKFORD. Okay. So what was the time frame on that?

Mr. HOCHSTEIN. I think as our exports—you know, it is hard to predict that. I can say that by 2018, which is the prediction that EIA has for becoming a net exporter, and I would let my colleague address that, but I think it is important to say we give permits for, as the Department of Energy gives permits, they have to be built and then decisions have to be made to actually sell it.

Mr. LANKFORD. Right. We talk about it and we will come back to Mr. Smith on that. Mr. Hochstein mentions the amount that we have already permitted of the seven that are there. How many export terminals do you anticipate will actually be constructed?

Mr. SMITH. I can't really say, Mr. Chairman.

Mr. LANKFORD. Give me your best guess. You are an expert at this; you have lived and breathed it all the time on both sides, of the import and export facility side of it. What is your best guess of how many you think will be built?

Mr. SMITH. Well, I can say a couple things on that, Mr. Chairman. First of all, certainly there are terminals that are being built right now.

Mr. LANKFORD. Right.

Mr. SMITH. In terms of making predictions about what will happen subsequently, my experience is that I came to this job from industry; I spent 11 years at Chevron before I came to Government. And I actually worked on the Sabine Pass terminal when it was an LNG import terminals.

Mr. LANKFORD. Right.

Mr. SMITH. So if you had asked me, at that point the question you would have asked me was how many terminals to import LNG would have been built and I probably would have made you an estimate because I was working that field. So I am going to demure from giving a numeric total because our collective faith in our crystal ball should be diminished. I mean, energy—

Mr. LANKFORD. Okay, we have seven permits out there already; 24 permits that are still pending. Do you think we will build 31 terminals?

Mr. SMITH. I can safely say that I do not think 31 terminals will be built.

Mr. LANKFORD. Okay. Do you think we will build 15?

Mr. SMITH. I don't know.

Ms. SPEIER. Mr. Chairman, let's kind of play this out a little bit. Mr. Hochstein, I think, or maybe it was Mr. Smith, said that what has already been permitted would generate about half the LNG that Europe already uses. Now, if we don't want to have—these companies are big boys, so they can make decisions as to whether or not to build or not to build. They made decisions to build import facilities and then got burned, and I would venture to say they are probably going to be reluctant to move too swiftly, because it appears that this particular market varies dramatically from time to time in short periods of time.

So if, in fact, half of the natural gas that is being used by Europe today has already been permitted in the United States and we have the countries of Australia, Mozambique, Israel, Cyprus, and Lebanon coming online, I mean, what are we saying here? They are not going to come online and not try and provide that energy to Europe in many respects, so—

Mr. LANKFORD. Which is actually my exact point on this, and Mr. Smith and I have had this conversation somewhat. If we already know all these terminals are not going to be built, we are giving a competitive advantage to people that filed a permit request a couple of days before or a couple of weeks or months before someone else, where they may have filed a—and some of these folks filed actually their permit request the exact same day, but they actually won't find out for maybe two or three years later than other people on it. So we are giving a competitive advantage to some companies and other companies just have to wait two or three years until DOE makes the decision and then start with FERC.

I agree all these facilities are not going to be built. There will be a lot of competition worldwide, but we will lose the competition worldwide if we continue to delay. So basically we are saying to Australia and other countries you go compete worldwide, we are going to discuss it.

Ms. SPEIER. But the flip side of that coin is part of our resurgence, part of our economic reinvigoration is the fact that companies are bringing manufacturing back to the United States because the cost of fuel is so expensive in China and elsewhere, and they see the net benefit. So we are creating jobs in that regard. So we don't want to cut off our nose to spite our face, either.

Mr. LANKFORD. I totally agree. We are about four and a quarter right now for natural gas here in the United States; 12 bucks in Europe for the same piece. So even at that point companies that

are going to relocate are going to relocate. So my conversation is how do we balance this out? How do we use the economic engine? When you look at job growth over the last several years, the largest area of job growth in America has been energy. And how do we continue to maintain that engine to continue to work in a very difficult economy, to say the least? You continue to provide new markets for them to go to. So we have an economic benefit here in the United States and we have a geopolitical benefit worldwide, which I want to expand this, if I can, real quickly.

Mr. Hochstein, as well, there is a lot of conversation between India and Iran right now dealing with natural gas, so we can continue to talk about Ukraine, but this is not just a Ukraine issue; this is a worldwide issue. Is the State Department comfortable with India's natural gas supplier being Iran? And, if not, what are we going to do about that?

Mr. HOCHSTEIN. Thank you, Mr. Chairman, for that question. We have been implementing and my office has been leading the effort to implement the Iran sanctions on energy for the last two years, especially since Congress passed it in late 2011.

First, let me say this. We do not believe there is any truth or likelihood to gas supplies from Iran to India at this time, or to Pakistan. Iran is a net importer of gas at the moment. They export some to Turkey on one side of the country and they import some other from Turkmenistan. And we have had very close and open and frank conversations with our Indian friends about their oil purchases from Iran, as well as how we would view Iran exports of gas. But currently Iran doesn't have the gas supply or the infrastructure, and that is due to sanctions; they sit on the largest reserves. But as a result of sanctions they have not been able to build out that infrastructure and there is no infrastructure in sight to be able to deliver that.

If they do build it, Mr. Chairman, I assure you that our views are very well known to our friends and allies about how we feel about as long as sanctions are in place.

Mr. LANKFORD. But are we in a position to be able to say, India, we will supply your natural gas needs? Or are they a spot to just say go in the market and find it?

Mr. HOCHSTEIN. India will be one of the first that already has contracted for natural gas from Sabine Pass.

Mr. LANKFORD. Okay.

Other questions?

Mr. Farenthold, this is the second round on this. Do you have questions you want to be able to ask?

Mr. FARENTHOLD. I do, and I apologize for not being here earlier.

Mr. LANKFORD. Go right ahead.

Mr. FARENTHOLD. There is a Judiciary markup on human trafficking, so I am kind of bouncing between committees. But I do have some questions.

Mr. LANKFORD. Go ahead.

Mr. FARENTHOLD. I would like to ask our State Department representative there have been some discussions they have told me about here today and I have read your testimony, and a lot of what we focused on is exporting U.S. source LNG to the Ukraine. U.S. LNG exports are an important foreign policy tool for assisting our

allies, especially when dealing with Russia, and it would certainly benefit our economy at home. But I would like to talk to you a minute about the benefits of potentially assisting the Ukraine not with U.S. LNG, but with world source LNG.

The State Department has repeatedly asserted that LNG exports are not a viable option for helping the Ukraine in the near term because U.S. LNG exports are such a long way away. I am going to have a conversation with Mr. Smith about that when I am finished talking to you, but I do want to know while this is unfortunately true, it is my understanding the Ukraine has been in discussions with at least one U.S. company about constructing an LNG terminal in the Ukraine and bringing world source LNG in until the U.S. supplies are available. It is my understanding that this could be done in as little as six to eight months. No one is saying they can get a plant built in six to eight months, I do point that out. However, Turkey is causing some potential problems by denying access to the Bosphorus Straits for the passage of LNG tankers.

What is the State Department's view of this? Are you aware of the world source LNG could be a viable solution in the Ukraine and what are your thoughts on this?

Mr. HOCHSTEIN. Yes, Congressman, thank you for that question. You are right, when we talk about LNG as a solution, I don't think it is a comprehensive solution for all problems, and the U.S. is not, but we are not the only supplier; there are others and, in fact, some of the European countries that are building LNG terminals are in contact with other suppliers for more immediate gas.

As far as Ukraine, we have had this conversation for quite a while about the interest in Ukraine to build an LNG facility on the—and it is not really to build a terminal, I will just say, and that is why it takes sort of—it is to bring in a floating LNG facility, a boat that will come online. So it is a little bit different.

The concern and what is blocking it, as you said, in the Black Sea is exactly what you said: Turkey does not allow LNG tankers to cross through the Bosphorus. They maintain that that is a national security issue. This has been a longstanding position that came up several years ago—

Mr. FARENTHOLD. Are you guys working with them on it?

Mr. HOCHSTEIN. I am sorry?

Mr. FARENTHOLD. Are you guys working to educate them on the fact these things probably aren't going to blow up the way they think they are?

Mr. HOCHSTEIN. We have very frank, open, and honest conversations with our friends in Turkey about LNG trade and in general about what it means to have open access trade through the Bosphorus. But their positions are theirs to have and they have concerns.

Mr. FARENTHOLD. Certainly we don't control Turkey, but Turkey has been a good friend and ally to this Country, and hopefully we can bring them along.

Mr. Smith, in a previous hearing we have heard from the Department of Energy on the process for getting LNG export facilities permitted. One of the things that I have heard that the DOE considers is, all right, well, we don't want to get too many of these because we want them all to be profitable. It seems to me is that an

appropriate role for the Government to decide how many to have so they are going to be profitable, or is that something that should be left up to the market? If the market has a demand for, let's say, 20 LNG export terminals and 25 are built, well, that is not the Government's money that is going to be lost; that is those investors' money that is going to be lost for making a bad investment.

Can you talk a little bit about that, how big of a consideration that is in the process?

Mr. SMITH. Well, thank you very much for that question, Congressman. That, indeed, is not a point of disagreement. The Department does not take into consideration whether or not a company is going to be profitable or not; it is not our job to protect companies from themselves.

Mr. FARENTHOLD. So why is it taking so long to get these permits out?

Mr. SMITH. Well, I think it was instructive to hear the dialogue between the ranking member and the chairman in terms of some of the issues that we are dealing with. There are very strong views on both sides of the equation about the need to balance the increased production and balance of trade and job creation and the places where the terminals are being built with the impact on consumers and prices and impact on manufacturing sector, environmental factors. So those are a balance that we have to make.

Mr. FARENTHOLD. I will concede some environmental factors to you, but it seems like when the Government starts regulating based on marketplace factors and such, I think we are getting out of line. We could have a debate about that between the sides on this dais and probably the Administration, but I am out of time on this. The potential is so much there and the delays are just frustrating to me, but I am out of time, so I will quit preaching.

Mr. LANKFORD. You can get a second round as well.

Ms. Lujan Grisham.

Ms. LUJAN GRISHAM. Thank you, Mr. Chairman. Well, maybe I can take on the preaching. Thank you very much for being here and thank you very much, Mr. Chairman, for the hearing. We are all looking for those investments and balances, wanting to move forward quickly enough that we experience the right kind of results from those investments.

In my State, I am from New Mexico, the energy industry is certainly critical to our economic success; it is a significant component of our current economic base and, in fact, I think it is responsible for about 30 percent of our State's general fund revenue; and in a poor State like New Mexico, that is the only way we pay for education. It is also clear to me that the natural gas revolution has national security implications. According to the International Energy Agency, the U.S. has enough natural gas to meet all of its energy needs from domestic resources by 2035, and that allows us to be less reliant on the Middle East and other countries for energy.

With that said, I know this has been discussed already, we have a responsibility to make sure that we manage the resources in a safe and responsible manner. We want to protect public health, wildlife, the environment, and our water resources. But I think it is important to explore ways to ensure that the Ukraine and our allies have access to reliable supplies of energy for their own na-

tional security reasons; and it is certainly all of our understanding that the Ukraine faces numerous energy security vulnerabilities, including a lack to an adequate energy infrastructure, which I just heard you talk about, which I appreciate, several times.

But I would love it if you would elaborate. I know that we started that conversation with Representative Holmes Norton, but I do want to talk about specifically if you could elaborate on what those strategies are and give me a little bit more depth, please.

Mr. HOCHSTEIN. In securing the energy security in Europe? We are working on a number of factors simultaneously. Number one is to make sure—and I am going to separate out what we are doing for Ukraine and there is the rest of Europe, and primarily the Baltics or South Central Eastern Europe.

In Ukraine it is about making sure that, if there is a shutoff of gas in the near term, that we have reverse flow capability in Hungary, in Poland, and in Slovakia, and to expand that to the degree possible that it takes care of the portion of gas that they import.

Number two, that we help them become a more efficient and more capable producers of their own gas. They are quite an impressive producer of natural gas, but a lot of that technology is 1970s Soviet technology that can be updated and they can be using and producing more natural gas on their own. We are also working with them on their interest in exploring their unconventional gas areas. We are working with them to make sure that the reform of the sector is such that they will be able to not end up in the same situation that they are in today, and to make sure that efficiency rates are there so that they can do more with less; that includes subsidy reform, etcetera.

In Europe we have to make sure that the infrastructure is there, that the regulatory reforms that they have started continue. We are working very closely with them on that, and to look and make sure that there is no energy islands in Europe, which is a stated goal of the EU. So the Baltics are a good example of that. LNG is going to be a key factor in that. Lithuania has gone a long way.

The chairman mentioned Anita Orbon, the Ambassador-at-Large for Hungary, who is a good friend and we work closely together as they represent and chair the V-4, the Vice Cred 4 countries, plus Romania and Bulgaria, to make sure that, as a southern corridor is established, that we have more infrastructure to supply Europe.

So, as you can see, there is not one answer for any of these, and it is unfortunate that you can't fit it into a headline, here is what we do with Europe; it is a lot of different aspects of it.

Ms. LUJAN GRISHAM. And given that you have to have a broad approach so that it is sustainable over the long haul, I certainly can appreciate that and recognize, given that we have our own natural gas exploration issues in New Mexico, because we can't recapture the cost until a lot of this gets balanced, and I am very supportive of moving so that we have more export opportunities, because that is going to create an environment in my State to further that exploration and then do exactly what you said, which is looking at tertiary recovery that is cost-effective and that we have the infrastructure to do.

But what of those strategies, in 15 seconds, are quick? So I am looking at some of the stability issues in Ukraine. Can you pick one or two that you think have more of an immediate relief?

Mr. HOCHSTEIN. I think the reverse flow capability and making sure that Ukraine is able to pay the arrears so that gas continues to flow. But the reverse flows are very, very important, and we have made a lot of progress on that and we need to make more. If I had to say 15 seconds on one thing, that is what it would be.

Ms. LUJAN GRISHAM. All right. Thank you.

Mr. LANKFORD. You can go ahead and extend that out. If you want to go ahead and answer that, that is fine, if you have additional responses.

Ms. SPEIER. Why don't you speak about energy efficiency, or the lack thereof?

Mr. HOCHSTEIN. Sure. As we discussed before, and I will finish the answer, Mr. Chairman, it is critical as we look at Ukraine, it is such a big problem, but if we look at the numbers and we look at the production rates and the import rates and what is in the system as made available by the regulatory changes in Europe, we can expand those reverse flows quite considerably so that maybe not fully for this winter, but in the years to come Ukraine can choose whether or not to import gas from Russia or to do it through other mechanisms. So it is very important.

As far as the efficiency rates, ma'am, Ukraine is very inefficient, and the Department of Energy, together with us, is working on proposals to work with Ukraine to see what we can do to increase efficiency rates, and that means, as many have addressed, the subsidy issue, where a gas is so cheap that people have no incentive to conserve, but also to put in place the kind of mechanisms and structures that will allow for more conservation so that they can do far more with less or with the same amount. So that is a program that we have done in other countries. DOE and the Department of State work together on these issues, and I think we have a number of proposals that could work very well for Ukraine.

Ms. SPEIER. Mr. Smith, can we talk about FERC and the process there, which my understanding is more cumbersome and takes longer? How does that interrelate with the process that you have ongoing?

Mr. SMITH. Well, thank you, Ranking Member Speier. I don't want to get too far into the details of the FERC process because I am not from FERC and I am afraid I would not be able to characterize it appropriately, but I would say in general terms the FERC has an important job of managing the environmental process of evaluating the environmental impact of the terminal itself, and they give the authorization to actually build the terminal. So they have a very detailed and important role to play in this process. Ours is kind of larger, bigger picture, looking at the impact of exporting the molecule, but they have to go through the very detailed process of looking at the specific impacts beside itself. So we work closely with them. We share information in terms of making sure that we know where the different projects are in the queue, but their process is separate from ours.

Ms. SPEIER. No, I understand that, but I have been told that their process is cumbersome and long, and that they have a huge backlog. Is that true?

Mr. SMITH. I wouldn't characterize their process as necessarily cumbersome. I think it is appropriately detailed because it is a key part of the decision-making process.

Mr. LANKFORD. Can I ask a question of that as well? Are some of the applicants in the FERC process, permitting process now, even before they have a DOE permit?

Mr. SMITH. Yes. We do see applicants going forward with the FERC process, which is also a significant expenditure of funds; you have to do a lot of work in terms of your initial engineering and your environmental studies. So we do see companies moving ahead.

Mr. LANKFORD. We are obviously pretty serious with that. What happens when they get a FERC permit and the DOE process is not complete and they are in the queue? If they have a FERC permit in their hand, let's say they have gone through the whole process and they have completed that, but they don't have a DOE permit, what happens?

Mr. SMITH. Well, I mean, there are two types of authorization that DOE gives: we give conditional authorizations, which is essentially consistent with the precedent we have set for giving some sort of confidence to individual investors that their final approval will be granted, and then there is the final approval. So we have given seven conditionals and we have given one final approval. So if there was someone who actually did go through the entire FERC process without a conditional approval, they conceivably could come back for a final authorization from DOE.

Mr. LANKFORD. And would they still have to wait in line in the queue on that? Let's say they are number 15—I am just going to make up a number—in a list, but they have a FERC permit done, but they are still waiting on DOE on this. Would they have to wait until number 12, 13, 14 is complete before they get it, or would they move up the queue?

Mr. SMITH. That hasn't occurred yet, so I don't have a definitive answer to that question, but conceivably, if they were done with the FERC process, then we would have to come up with some process for dealing with an applicant who went forward, did all that work without having gone through the conditional approval process. But, again, I don't have a precedent to point to that.

Mr. LANKFORD. But it does become the challenge that if they walk through that process and get that done, they are holding the FERC permit process in place, they are ready to go. It shows a seriousness that others may not have. You mentioned I don't know how many it is total that have already started through that FERC process on it. Do you know what the number is that have already started through the FERC permit process?

Mr. SMITH. I don't know. I could probably tally that up. I don't know off the top of my head, but there are a number of projects that, even though they have not gotten up in the queue in terms of DOE, they have started with the FERC process.

Mr. LANKFORD. I am guessing, just based on the preliminary report that I have, about seven companies have started working with FERC to get that permit process, but they don't have DOE ap-

proval yet, at various forms in that line. So the concern is if they end up with one and they are waiting on the other one, we are back to what Mr. Jordan and Mr. Hochstein had this wonderful conversation about Keystone on; they are in this unique situation where they are just waiting. That is the difficulty of all this from a business side and from also our foreign partners and allies around the Country, and when they come to talk to me, their one statement is when will we get an answer, and the difficulty is I can't tell them that.

As a member of Congress, I can't look at them and say here is when the answer is coming, because there is no predictable answer. Because, as we talked about before, it could be two weeks before the next permit comes or it could be two years. It might be 20 years; it could be five and a half years and still discussing it. So there is no predictability in this, and that is terrible for business and that is terrible for our allies. So at some point we have to get some sort of predictability in this process to know, yes, we are working through a process; here is how many weeks it is going to take; and it is not a red flag to people to say if you will just write more letters to us, then we will slow down the process even more, which is what it seems to be now.

Mr. SMITH. Well, Mr. Chairman, I will make a couple points on that. First, I think the Department of Energy has established a track record of getting these authorizations done. Again, these are all very complex, sensitive, complicated evaluations that we have to do, where we have to balance a myriad of sometimes conflicting interests. But the Department has established, I think, a very credible and very reliable track record of moving through the queue. Again, we don't have a clock or a bell that says time for the next application. When the team is done writing the application, the application is released by the Department.

The second part of that answer, if someone says what is going to be the availability of natural gas from the United States, as my colleague from the State Department has pointed out, we have already authorized 9.3 billion cubic feet per day of exports, which is equal to all the LNG that goes into Europe, it is equal to half the LNG that Europeans import from Russia. So there has already been a tremendous amount of LNG that we have authorized even going through this very important public interest determination. And there will be a question that you posed earlier about how many of these will be built. At what rate will the private sector actually build the terminals that we have already authorized.

So there is, I think, certainly some demonstrated progress that we have made. It is a tremendous amount of gas that we have already authorized and, indeed, the fact that we are no longer importing large quantities of LNG has already impacted global markets dramatically.

Mr. LANKFORD. With that, when you talk about a tremendous amount that has already been permitted, is there some cap amount, that you are saying we are going to get to this certain cumulative total and we are not going to permit any more beyond that?

Mr. SMITH. No, there is not. We have not determined a level beyond which we are not going to permit. So that is not something the Department of Energy has identified or determined.

Mr. LANKFORD. So best interest continues to be a subjective for each location based on the letters that come in and responses that come in for that area, working through looking at did you fill out the application correctly type thing and trying to evaluate that, getting a chance to interact with the Department of State to see who the partners are and how much is demanded from around the Country. Obviously, the NERA study that DOE commissioned gave a more objective look at the economic benefits of this, so while I understand you have letters coming in that say we don't want this or we do want this, you also have an economic study that you commissioned that says, yes, this is a good idea and it is in the best interest, economically, of the United States.

Mr. SMITH. Indeed. I mean, there was a study that was commissioned that was received by the Department that was considered as part of all of our applications to date. But I will point out that, as we go forward in time, conditions do change. As was pointed out earlier, a couple months ago we would not have foreseen sitting in this room talking about issues in the Ukraine because it wasn't an issue that existed.

Mr. LANKFORD. Well, I am not sure that is 100 percent true since, like I said, almost two years ago members of the Ukrainian parliament were already knocking on my door, saying how quickly could we get this. They were already dealing with Russia randomly shutting off their energy. I think this was a pretty predictable crisis in Central Europe. It may not be specific to Ukraine, but we knew it was coming somewhere.

Would you agree or disagree, Mr. Hochstein?

Mr. HOCHSTEIN. I would agree that we have been working on the vulnerability that we identified the vulnerability that Europe has with its reliance on a single source in many cases and we have been trying to reduce that. So, yes, I would agree that this is a crisis that is a surprise to some, but not to others, the energy portion of the crisis.

Ms. SPEIER. Mr. Chairman, I don't know if we ever got clarification of how much natural gas is going to be generated by these other countries that you had mentioned earlier, Mr. Hochstein.

Mr. HOCHSTEIN. By the other producers coming online? A lot of this is we are early in the process. Israel has already taken care of, with the first two fields that have come online. The first big one, Tamar, has addressed their entire ABCM, their entire domestic needs. They have come up with an export policy, so it is not only about how much you are going to produce, but how much you are going to put on the market, that 40 percent of their production of Israeli production will go on to exports.

We don't know yet the amount out of Cyprus. We have one field that has been proven, but there is going to be drilling throughout the summer and fall by three companies, one U.S. and two European.

Mozambique is about double the size of the Israeli find, but they need to get their act together as well.

So a lot of the gas from Eastern Africa is going to end up going to Asia, if you think of what makes sense from a transportation perspective. And this takes us back to the argument this is not just about Ukraine and Europe. This is about a global demand. And as we are putting more product on the market from a variety of places, there is demand that is rising as well, in Asia in an impressive pace, and that has to be addressed. So what happens to Europe, they are not entirely at their own decision-making; there are a lot of market forces that are going to have to come into play. And as we see what the prices are around Asia, that will determine what the supplies are available for Europe.

But that pressure is already there. As a result of our production and not importing, Europe, for the first time, actually went out and renegotiated and forced the Russians into a renegotiation of price, and were able to get better terms from the Russians a couple years ago in a way that they weren't able to do that in the past. So these dynamics are having real impacts.

I am with my colleague here, it is very difficult to make some predictions on this, because if you read anybody's predictions in 2009 into global supplies and trade of natural gas, they would have been very, very mistaken today, in hindsight.

Mr. LANKFORD. Mr. Hochstein, you mentioned before that the State Department is helping some of the folks in Europe with non-conventional explorations of oil and gas, and you made the comment that you are helping them focus on science, not emotion. Can you clarify that?

Mr. HOCHSTEIN. I didn't say I am helping them; I said that we recommend that when you are going to make a decision on whether or not to explore unconventional and shale, it is important to look at what the science is and what is and what isn't true. We have had a great experience here in the United States with a regulatory system of both Federal and the States of looking at that, and what we would like to do is to brief them and educate and show what we have been able to learn from the experience here.

We have brought a variety of delegations here to the United States, together with EPA, Department of Interior, Department of Energy to learn from the process here; and what is great about it is that it is not a monolithic here is how to do it. Here is how we do it at the Federal level, but then look at what Colorado is doing, versus what New York or Pennsylvania or Texas, etcetera. I think that has been very useful and there is a larger and larger interest in that program.

There are some countries that have announced moratoriums on shale development and exploration, and that is their decision to do it, and if they don't want to explore it, that is fine. We continue these conversations even with those countries, but obviously don't have programs with them to support the process if they are going to have a moratorium.

Mr. SMITH. I would add one thing, if I could, Mr. Chairman, to that observation. A couple years ago I traveled to Warsaw with Mr. Bob Secuda, who is the Principal Deputy Assistant Secretary for the Bureau for Energy and Natural Resources, where Mr. Hochstein works, and we participated in a session that was held by the IEA called the Golden Rules for the Golden Age of Gas, and

it was a collection of subject matter experts from around the world convening to discuss their experiences in shale gas and unconventional gas development.

Again, I will reiterate it isn't our jobs to tell other sovereign nations what to do with their resources, but we think it is in the best interest of the United States to be as open and transparent in sharing the best practices that we have learned here to help build kind of a scientific basis for decision-making. So we see that as being positive and something that we affirmatively support through our actions.

Mr. LANKFORD. Just for clarification on this, the State Department is working with other countries that have shale to be able to bring them to the United States, to be able to interact with some of our regulators, to be able to look at some of the science side of this, how we can actually do it, do fracking, do horizontal drilling to be able to take this on, because obviously their country—well, depending on the nature of their country and whether they own their own oil companies; some places do and some don't. Basically exposing them to what we are doing in the United States, saying this is a good idea for you to be able to take this on so you can provide your own energy resources in your own country.

Mr. HOCHSTEIN. I would agree with everything except for the last sentence. It is not for you to encourage you to do so. It is not our decision; it is a sovereign decision. If they decide that they want to move ahead and go ahead and exploit it, we will be there to support them with this program, if they are interested, to show them all the other things that you just said, yes.

Mr. LANKFORD. Right. You can't force a country to say I want to be independent, but most countries would say, if they have the opportunity to not be dependent on someone else for energy, they would most likely take that.

Mr. HOCHSTEIN. Mr. Chairman, at times there are also external factors and external forces that come into countries to encourage them not to explore those resources.

Mr. LANKFORD. I would say Oklahoma would be welcome to receive folks from around the world to be able to show them how we do natural gas exploration, how we do it extremely well, extremely clean. And our regulatory scheme in the State of Oklahoma and how we actually regulate things as far as exploration is exemplary. I encourage people to come drink our water and breathe our beautiful air and see our wonderful land, and to be able to see how you can do this and can do it clean. We have had over 100,000 fracs in Oklahoma, and it is a beautiful State and has very clean water and very clean air.

So, as you mentioned before, trying to deal with the science, not the emotion, when you are finished with the rest of the world, I would appreciate it if you would come back to the United States and share what you have learned as well about dealing with the science, not the emotion.

One other comment, unless the ranking member has another question on this, I want to shift topics. I promise I won't stay long. I want to bring up the issue of crude oil exports. And what we are hearing from our international partners on that, we already export refined products around the world. We are currently not exporting

crude. What are we hearing? We have heard quite a bit from people. They are very interested in our LNG. What are we hearing about crude and the request for that from our allies?

Mr. HOCHSTEIN. I think just like in the United States, this is a conversation that is happening around the world, and I think it was the next logical conversation that we were going to see happen. We are following that discussion of what it means. We are in the very early stages of this conversation. I followed what has been done here in Congress, both in the House and the Senate side, of discussion on what does this mean to have crude oil exports. I think this is a much bigger discussion. We have been so focused on the LNG side that the oil side is next. So I think we are in the early stages of understanding what it means and listening to the views that are being expressed.

I think there is less than a drum beat as far as our partners; I think there is more of a focus on natural gas. But there is definitely an interest in the topic of what the United States is going to do, but less of independence for those countries like the discussion of gas and more from the aspect of understanding how will this impact the mid-and long-term oil markets and prices and structures.

We have talked a lot about gas today, but we have the same changes, radical changes in the oil markets around the world today that are happening in gas; they are just slightly different. Big changes from the days where OPEC dominated the market; new players. And with most OPEC countries today producing at maximum capacity for a variety of reasons, some for sanctions, some for political instability, some for technical reasons, and some because that is the most they can do, the question of what happens to the market if the United States starts exporting is one that is fascinating those who follow the energy markets.

Mr. LANKFORD. So let me just complete that thought. Prices drop worldwide if we start exporting, correct or not correct?

Mr. HOCHSTEIN. I think it would depend on the dynamic. I have learned one thing in this business, which is that any prediction on oil prices, those who make those predictions usually regret them later.

Mr. LANKFORD. It tends that all it takes is a little cross-border war somewhere in the Middle East and it changes everyone's gas prices all the time. I do understand that. But is there an unease, I would say, in the OPEC countries that the United States could become an exporter?

Mr. HOCHSTEIN. I think they are watching our decision-making process very carefully.

Mr. LANKFORD. Okay.

Mr. Smith, do you want to make a comment about that?

Mr. SMITH. I would probably second the comments of Mr. Hochstein. There has been more focus on gas, obviously, because there is a statutory process for dealing with natural gas and there is not a statutory process for dealing with oil. But this certainly is a topic that we think is of interest, but we don't have a direct role in even the current limited capability of exporting oil if there is a waiver granted, so the DOE does not have a role there.

Mr. LANKFORD. Is the DOE doing a study of oil capacities, what is coming online, our capability of production and what we will actually use?

Mr. SMITH. Well, that is something that obviously the Energy Information Agency follows very closely, and that is kind of a semi-autonomous part of the Department of Energy. We are consumers of their analysis, so we follow that very closely.

Mr. LANKFORD. Semi-autonomous. I am enjoying that conversation. We can have that conversation about several agencies, actually, and several departments, semi-autonomous.

The length of time issue you and I have talked about often, as far as the permitting, getting back to LNG. Predictability I think is extremely important not only for American companies and American production, but I think it is extremely important for our international partners at this point. I don't know how we get there, because, based on what you are saying, your team is working on it, but there are no deadlines and there are no demands on certain time periods; it is we will get it done when we get it done. And my concern is, for our international partners, they need some certainty. The folks that have come to visit my office have all said the same thing: when?

Ms. SPEIER. Well, Mr. Chairman, let me interject, then. If this is one of speediness and still doing the job, then the question becomes are the fees that are being charged to provide this evaluation adequate to do the job and does the office need more staff. Maybe you can address that as well.

Mr. SMITH. Well, thank you. I will make two points on that. First, when I go and talk about LNG at various venues, I am often followed by a market expert who will put a chart on the wall that shows the exact length of time between various DOE actions and juxtapose that against prices or a bunch of other things, and there is all this analysis about why is it 10 days longer between these two than these other two. So those are always interesting to watch because there is all this theorizing about what is the back story about the extra four days here, and the bottom line is that there is not a back story; all of these are slightly different.

But what we can see is that we have established, I think, a fairly reliable track record of getting these authorizations out in a reasonable amount of time. There has been a consistency over the past year or so. It varies from order to order within a reasonable amount because all the orders are not the same. So it is our intention to make sure that we are moving forward in that manner. We have already authorized, again, 9.3 bcf, which is a considerable amount, and the biggest uncertainty really now is what is going to be the reaction of the private sector that has already received these authorizations. At what rate are these terminals going to be built? Because they are massive multi-billion dollar investments that are complex to get built, and they will be built if the market determines that there is going to be a demand for U.S. gas.

Mr. LANKFORD. But if they have the FERC permit done, they are not moving in line or they are moving in line?

Mr. SMITH. Again, we have a number of applicants that have not yet received a conditional authorization from the Department of Energy that are working through the FERC process. We have not

come to the position where someone has finished that process in advance of having received a conditional authorization, so unfortunately I don't have an answer to that question because it is sort of a hypothetical at this point.

Mr. LANKFORD. I understand, but that will be a big issue. I mean, obviously this becomes very, very significant. I would hope that you are addressing this, that if someone is holding the FERC permit in their hand, but it is two and a half years of still waiting on the DOE piece, or it is unpredictable, they just don't know—I know you said we have established a process that has some predictability, but just because it has been done that way in the past, as you mentioned already, doesn't mean it is going to be done that way in the future. You are not saying it is going to be six to ten weeks between each one; you are just saying this is what we have done in the past.

Mr. SMITH. I am saying that we have established a track record. But, again, this is an unprecedented activity. I mean, the Department of Energy, when this market changed, and you referred to this energy production revolution in your opening statement that has taken the regulators within my organization and they have gone from looking at import terminals to export terminals. Everything has changed. So I think there are a number of hypothetical situations that one could come up with and say, well, what are you going to do in this situation, what are you going to do in that situation? We are busy and hard at work at making sure we are doing the work that is before us, that we are meeting our commitment to get these out in as timely a manner as possible; and as we move into new situations, those are things that we are going to have to consider and made the best decision that we can.

Mr. LANKFORD. So it is possible at that point, if they are holding a FERC permit, for them to be able to come back and be able to step out of line. We have to reevaluate that.

Mr. SMITH. I will certainly say that at all times we are looking at ways to make the process better and more efficient based on signals that are being sent by the markets. So as the market sends us signals that are different from the signals that were sent when we established a certain process, we are not inflexible to doing the thing that is appropriate based on appropriate market signals and our assessment of public interest.

Mr. LANKFORD. Okay.

We will still have more conversations about this, obviously, because I understand you are still saying look at our history, but there is no predictability of what happens in the future, and that is really a much needed thing right now, both in our Nation, development of infrastructure. If any of these facilities are going to be built, we have to get pipelines to them. That is years in the process, it is years of construction and it is lots of capital. It is going out and pursuing contracts worldwide. It is our international partners saying, okay, we are going to get it, here is the date we are going to happen. All those things are all pending on your team making a decision and people knowing when it is going to happen.

So not to say you have the whole world in your hands, but there are a lot of folks around the world that are waiting on decisions that if we can't get predictability of when they are going to happen,

there are a lot of folks around the world that are just waiting a lot of economic development here in the United States that is waiting to be released pending a decision from your office. So if we can get some level of predictability on that, it would certainly help our economy and would help our geopolitical situation as well.

Mr. SMITH. Understood.

Ms. SPEIER. Mr. Chairman, I would just like to close by thanking our two witnesses who have, I think, presented some very persuasive arguments for why this is global in nature and not something that the United States, in and of itself, is going to fix. But certainly your admonition that there should be some predictability is worthy of us reviewing, but I would urge us to look at FERC as being part of that, and they are absent from this discussion here today, and they are a key component as well.

So thank you for your good work and for your service to our Country.

Mr. LANKFORD. Gentlemen, thank you.

With this, this hearing is adjourned.

[Whereupon, at 11:56 a.m., the subcommittee was adjourned.]

APPENDIX

MATERIAL SUBMITTED FOR THE HEARING RECORD

Written Testimony of

Ambassador-at-Large for Energy Security

Dr. Anita Orbán

Ministry of Foreign Affairs, Hungary

Before the House Committee on Oversight and Government Reform, Subcommittee on Energy Policy of
the United States House of Representatives

Examining the Effect of LNG Exports on US Foreign Policy

April 30th, 2014

I would like to thank Chairman Lankford for the opportunity to submit a written statement for the subcommittee hearing. On March 6, 2014 the four Ambassadors of the Visegrad Group in Washington sent a letter to Speaker Boehner and Majority Leader Harry Reid to urge them to recognize the overall importance of U.S. engagement in Central and Eastern Europe, and more specifically in the area of energy security and reliable supply of natural gas. On March 25th I had the opportunity to present our arguments for urging US LNG export liberalization in front of the House Subcommittee on Power and Energy. In this testimony, I don't intend to repeat facts and arguments stated in the previous one. I will concentrate on the developments which have happened during the one month which has passed since then and which make the US LNG export liberalization even more urgent than before.

First and foremost, let me thank for the leadership Congress has been demonstrating in recognizing the geopolitical and national security implications of US LNG export liberalization. Congress' impact is already visible. On March 24th, in the text of the approval of the seventh export license to any non-FTA country, the Department of Energy referred to the energy security implications of US LNG export the very first time. The DoE argued that one of the international benefits of LNG export is in "assisting countries with limited resources to broaden and diversify their supply base, which will contribute to transparency, efficiency, and liquidity of international natural gas markets."

The joint statement issued after the EU-US Summit two days later read: "we welcome the prospect of US LNG exports in the future, since additional global supplies will benefit Europe and other strategic partners." Then the joint press statement of the EU-US Energy Council held on April 2nd reconfirmed the geostrategic implications of US LNG export by saying that "The Council further welcomed the prospect

of US LNG exports in the future since additional global supplies will benefit Europe and other strategic partners." Hadn't it been for the leadership of Congress, these references would not have made it into the above texts.

While the recognition of the benefits of US LNG export for Europe is highly welcome, the recent events in Ukraine will make further steps necessary. Even before the escalation of the Ukrainian situation, we have been arguing that the pricing of Russian gas is politically driven. In my March 25 testimony, I used \$400 as an example of how unrealistically high Russia may raise the price of a thousand cubic meter of gas delivered to Ukraine if she chooses to deploy it as an economic weapon. In fact, Moscow went beyond that wild number and quotes \$485, or about \$17mmbtu, i.e. four times the current Henry Hub price. Given that Ukraine had difficulties settling its invoices even when the price was \$268.5, the new price seems to be well beyond what Kiev is able to cover. Ukraine may face a winter without gas supplies from the East. It will have two choices: buying gas from the West or caving in politically.

On April 11, Russian President Vladimir Putin sent a letter to 18 European countries warning them about potential supply disruptions in the winter. The letter says "in order to guarantee uninterrupted transit, it will be necessary, in the nearest future, to supply 11.5 billion cubic meters of gas that will be pumped into Ukraine's underground storage facilities, and this will require a payment of about 5 billion US dollars. However, the fact that our European partners have unilaterally withdrawn from the concerted efforts to resolve the Ukrainian crisis, and even from holding consultations with the Russian side, leaves Russia no alternative." Putin's letter also implies that there may be issues with the transit of European gas via the Ukrainian system in the winter.

In March, we drew attention to the energy security consideration of the countries in Central Eastern Europe and the immediate pricing and geopolitical signal LNG export liberalization could send to the region. By now however much more is at stake. Based on the letter of the Russian President, both Ukraine's and part of Europe's winter gas supply may be in danger. If a supply crisis occurs, analysts believe it will be much deeper and longer than the one in 2009, with serious economic, political and national security consequences for the entire region.

One of the options Ukraine has at its disposal is to use reverse flow capabilities from Europe. Hungary along with Poland has been the first to open reverse flow capabilities to supply gas to Ukraine. The capacity of the Polish-Ukrainian reverse flow is 1.3 billion cubic meters a year, while the Hungarian one is 6.1bcm. Significant efforts are being made to open a third reverse line from Slovakia to Ukraine with even larger capacity. However, the already two existing reverse flows offer a sizable alternative to Russia's 30 bcm annual export to Ukraine.

While the infrastructure is partly available, capacity is only one side of the coin. Besides overcoming the traditional East-West pipeline infrastructure in the former Soviet satellite states by constructing North-South and South-North interconnectors and inaugurating reverse flows, countries in the region also need to secure the necessary volume of gas. Without extra volumes all the new capacities will be redundant.

As energy poor countries, we are unable to provide this additional volume of gas. Hungary imports 80% of its natural gas need, Slovakia does almost 100% and Poland about 60%. What use of the reverse capacities if they will stand empty? Imagine the hypothetical situation when LNG export licensing for WTO countries would have been expedited already. In this case, US LNG would have inspired LNG infrastructure developments in Central Eastern Europe, which now could act as gates through which LNG-sourced gas enters the region and supplies Ukraine. Obviously, under such circumstances, energy would not be used as a weapon in the Ukrainian conflict.

We have been also arguing that US LNG export liberalization will have an immediate price impact in Central Eastern Europe. Sergey Komalev, head of price formation and contract structuring of Gazprom Export has emphasized several times that if a country has alternatives, Gazprom is ready to lower its prices. In an interview given to Kommersant at the end of March, he said "We say to our customers: this is an oil product formula, which automatically calculates price and these are the revising rules. There are triggers, which allow revising, for example, if, on the border of a country, gas volumes appear, comparable to ours, but at a lower price." The prospect of a credible alternative in the foreseeable future would act as a force bringing prices down.

US LNG export liberalization is no panacea in the short term: the gas could not be delivered in large volumes to Ukraine immediately. It will not save Ukraine and possibly some other parts of Central Eastern Europe from a very cold winter in late 2014. Yet, it makes the medium-term solution very clear and this prospect would have immediate impact on pricing and maybe availability.

One of the biggest benefits of the current crisis has been the emergence of a relatively unified voice with which Europe and the US were able to speak. However, a potential supply crisis would affect members of the trans-Atlantic alliance differently. Some of them may experience zero impact while others suffer tremendously. While Central Eastern Europe has been building up the infrastructure, it is the United States which can provide the gas volumes to the market. LNG export liberalization is an elegant, yet very effective tool, which is relatively cheap to use. While doing away with these export limitations would make economic sense even in better times, the urgency of doing so now couldn't be any more visible. Gazprom's abuse of its monopoly position in both the pricing of gas and threat of supply cuts exposed the energy dependence of Ukraine and that of entire Central and Eastern Europe again. Russian monopoly position and with it, the threat of no heating in the winter and the unbearably high gas price will stay as long as there is no real alternative. The United States has the alternative and would be able to use it. With the post-Cold War settlement crumbling before our eyes, if there was ever a time for US leadership, it is now – and if there was ever an issue that would do as much good at as little cost, it is the issue at hand.

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April 30, 2014

House Committee on Oversight and Government Reform
Subcommittee on Energy Policy, Health Care & Entitlements
“Examining the Effect of Liquefied Natural Gas Exports on U.S. Foreign Policy”
Statement of the Honorable Michael R. Turner

Chairman Lankford, thank you for welcoming my participation at today’s hearing on the impact of U.S. natural gas exports on U.S. foreign policy. I would also like to thank Christopher Smith, Principal Deputy Assistant Secretary for Fossil Energy at the Department of Energy, and Amos Hochstein, Deputy Assistant Secretary for the Bureau of Energy Resources at the Department of State, for being with us today. U.S. natural gas production and exports hold domestic economic and foreign policy opportunities for the United States. I look forward to hearing your thoughts on how your departments are working, both independently and possibly collaboratively, to maximize these opportunities for the American people.

In light of ongoing events in Ukraine, there has been much discussion and debate concerning the geopolitical impact of liberalizing U.S. natural gas exports. I believe it is important that we discuss the benefits of U.S. natural gas exports not only concerning energy diversification, but also in the broader context of strategic partnerships with overseas allies.

The United States must rethink its defense and energy security partnerships. In the case of Europe, Russia’s recent military aggression and use of its energy resource dominance have simply provided a stark reminder that, rather than ignore or remain complacent with our existing partnerships, we must enhance them. The United States must stand with our European allies and reemphasize our commitment to a strong regional security alliance. We must also support initiatives, such as lifting the self-imposed restriction on natural gas exports, to help increase global energy supplies and create a more competitive natural gas market.

When it comes to trade, we often try to resolve market access issues in other countries to help our domestic companies sell their goods overseas. In the case of U.S. natural gas exports, we have imposed restrictions on ourselves to sell a U.S. product to overseas customers willing and eager to buy.

Lifting the self-imposed restriction on U.S. natural gas exports will help provide our allies with alternative and reliable sources of energy and create jobs right here at home. This will further introduce American competition in the global marketplace by increasing supply and the use of transparent, market-based pricing, which will provide our allies with greater choice and leverage when negotiating price. And this will help to curb the ability of countries, such as Russia, to use energy as a political weapon.

As you know, the U.S.-Europe partnership is critical to our common defense and the global economy. The United States and Europe have been strong partners, through organizations such as the North Atlantic Treaty Organization (NATO), to ensure regional safety and address emerging threats. However, it is clear that Russia, through its territorial aggression in Ukraine, seeks to once again destabilize much of Eastern Europe and restore its control over territories lost following the collapse of the Soviet Union.

As you may know, the Russian Duma authorized President Putin to use military force to protect Russian interests and Russian-speaking persons. The breadth of this authorization does not limit Russian military action to Ukraine. While to date President Putin has only used this authority against Ukraine, it is important to recognize that this blanket authority is a direct threat to our NATO allies and European partners.

We must provide immediate reassurance to our European allies that the United States remains firm in our commitment to security. That is why as Chairman of the U.S. Delegation to the NATO Parliamentary Assembly, I have long pushed for the further enlargement of NATO. I believe that the genuine prospect of NATO membership for the current group of aspirant states will further strengthen democratic institutions and values and increase stability and the security of the region. I also recently authored a measure, H.R. 4433, which calls for immediate action in Ukraine to deter further movement of Russian troops in Eastern Ukraine.

Energy security is also a key component of our overall efforts to enhance and strengthen the U.S.-Europe transatlantic alliance. As you know, Russia has repeatedly used natural gas pricing to draw governments closer to its orbit and punished West-leaning governments with higher prices. Previous disputes between Ukraine and Russia led to natural gas shutoffs in 2006 and 2009, negatively affecting downstream European countries. And Russia's state-owned monopoly, Gazprom, recently increased the price of natural gas on Ukraine by 80 percent.

While most of the recent attention has been focused on the crisis in Ukraine, other countries in the region are also heavily dependent on Russian natural gas and are seeking to diversify their energy resources. For example, Poland is so eager to wean itself from Russian natural gas that starting in 2015 it plans to buy LNG from Qatar at a price estimated to be 40 to 50 percent higher than the rate charged by Gazprom. Lithuania is building a floating LNG import terminal to help reduce its complete dependency on Russian natural gas. Croatia has a number of energy projects under consideration, including an LNG import terminal and pipeline infrastructure projects. And Hungary is working on various pipeline projects to enhance reverse-flow capabilities and is interested in securing alternative sources of natural gas.

Reliance on the Middle East and North Africa can also be risky. Turkey depends on Iran for 20 percent of its natural gas imports. And last year, Islamist militants attacked a natural gas facility in Algeria, which is the third largest exporter of natural gas to Europe.

In the Pacific Rim, Japan is a critical security partner as we counter threats posed by countries such as China and North Korea. Japan, already the world's largest importer of natural gas, is dependent on Russia, the Middle East, and North Africa for nearly 50 percent of its natural gas imports. And its dependency on imports continues to increase as a result of the 2011 earthquake/tsunami/nuclear plant disaster.

These examples of volatile prices, regional instability, and unreliable sources make clear that the United States must continue to support efforts to help our allies diversify their energy resources. Specifically regarding Europe, current and past Administrations have supported development of the Southern Gas Corridor, which will route natural gas from Azerbaijan to Europe, providing our allies with a reliable supply of energy. In fact, I authored a bipartisan resolution recognizing the importance of the Southern Gas Corridor.

European energy diversification initiatives also may offer opportunities to benefit the United States economically. For instance, U.S. companies are involved in the development of recent natural gas discoveries in the Eastern Mediterranean, which may help countries in the region to bolster political and economic ties and present another source of energy for Europe. And many of our European allies have expressed strong interest in purchasing U.S. natural gas.

In fact, President Obama, in a joint statement with European leaders, said he welcomed U.S. natural gas exports to help our European allies. While I am encouraged that the President recognizes the importance of exporting U.S. natural gas to help our European allies maintain their independence, I believe immediate action is needed to put force behind these words.

As you know, I worked with then-Senator Lugar in the 112th Congress on the LNG for NATO Act to expedite the permit process to export U.S. natural gas to NATO countries. Last year, I expanded this effort by authoring H.R. 580, the Expedited LNG for American Allies Act, with Senator Barrasso to expand application to NATO countries, Japan and possibly other countries of national security interest. In early March, I authored H.R. 4139, the American Job Creation and Strategic Alliances LNG Act, to expand the application to World Trade Organization (WTO) countries. And now I am partnering with my House Energy and Commerce Committee colleagues on H.R. 6 which incorporates the provisions of my bill to expand application to WTO countries.

U.S. natural gas exports, along with the Southern Gas Corridor and Eastern Mediterranean natural gas development, are a critical component to bolster our energy security partnership with Europe and our overall efforts to strengthen the U.S.-Europe transatlantic alliance. Lifting the self-imposed restriction on U.S. natural gas exports will further influence the global marketplace by increasing global supply, diversifying energy sources, and introducing market-based pricing.

As you may know, there is a significant price discrepancy between the price of natural gas paid by many of our allies and the price of U.S. natural gas. While the price of U.S. produced natural gas is set by the market, Russia and other gas-producing countries index the price of natural gas to the price of oil, making it artificially more expensive. In fact, over the last several years, the European Union has investigated allegations that Gazprom has been hindering natural gas supplies to Europe and unfairly charging customers by linking the price of natural gas to oil.

And last year at a meeting in Moscow of the Gas Exporting Countries Forum, which includes Russia, Qatar, Venezuela, Algeria, and Iran, President Putin urged participating countries to continue to link the price of natural gas to oil in response to increased U.S. natural gas production.

U.S. natural gas exports will further enhance competition and provide our allies with greater choice and access to alternative and reliable sources of natural gas. And this will further introduce market-based pricing and curb the practice of oil-indexation, providing our allies with leverage to negotiate prices and restraining the ability of countries, such as Russia, to use pricing as a political weapon.

Now I say “further” because U.S. natural gas production has already influenced global markets. Natural gas previously destined for the United States, but no longer needed as a result of increased production, was diverted to other markets. This increased supply has made the global natural gas market more competitive, helping to put pressure on contracts indexed to the price of oil and allowing several European countries to successfully renegotiate their long-term contracts with Gazprom.

Now, some critics argue that even if the United States acted today to lift the self-imposed restriction on U.S. natural gas exports, there will be no immediate impact. This could not be further from the truth. Liberalizing U.S. natural gas exports will immediately emphasize to our allies that the United States is a strong energy security partner. This will send an immediate signal to markets that new supplies of natural gas will be available, helping to influence prices and new infrastructure construction decisions.

I have also heard critics argue that since we cannot dictate the destination for U.S. natural gas exports, reforming the current export process will not help Europe, as exports will flow to Asia, the region paying overall higher prices. These critics choose to ignore the concept of supply and demand on the overall global natural gas marketplace.

Regardless of where U.S. natural gas is shipped, increasing supply in the global marketplace will provide international consumers with greater choice and thus, increased leverage to negotiate pricing contracts. The contracts signed between U.S. and European and Asian companies also introduce new ways of doing business to the international natural gas market, which will prompt others to follow suit or lose market share.

Again, U.S. natural gas production has already impacted the global market as supplies previously destined for the United States went elsewhere, helping several European countries to renegotiate contracts. In fact, Obama Administration officials have made statements which dispute the claims of such critics.

At a recent Atlantic Council event, the U.S. State Department's energy envoy, Carlos Pascual, said the following about U.S. natural gas and Europe:

"...what the Europeans are saying is that if the United States can supply this global marketplace, it will help maintain and sustain that pattern to competition and trade over time."

Mr. Pascual also stated:

"So even if that gas is not going specifically to Europe, it's helping to sustain this concept of competition in the global marketplace, which is fundamental to giving Europe choices."

Lifting the self-imposed restriction on U.S. natural gas exports will create jobs right here at home and help to make fundamental structural changes to the global market by increasing supplies, enhancing competition, and providing our allies with real choice and pricing leverage. This will enhance our strategic alliances, strengthen the independence of our allies, and help curtail the use of energy as a political weapon.

As we continue to address the critical issue of energy security, we must not overlook its importance to our strategic alliances. Bolstering our energy security ties will complement our national security ties and strengthen our overall strategic partnerships.

Mr. Chairman, thank you for holding this hearing and for the opportunity to be with you here today.

Statement for the Record

Congressman Matt Cartwright

Subcommittee on Energy Policy, Health Care and Entitlements Hearing on: "Examining the Effects of Liquefied Natural Gas Exports on U.S. Foreign Policy"

April 30, 2014

Thank you, Mr. Chairman Lankford and Ranking Member Speier for the opportunity to further discuss the effects of expanding liquefied natural gas exports on U.S. foreign policy.

The need to reduce our energy dependence on other nations is certainly an urgent one. Alternative green energy efforts must be a priority, not only for the sake of our environment, but for the health of our economy and the security of our nation. The United States relied on net imports for about 40% of the petroleum consumed by the nation in 2012. Our dependence on foreign petroleum has declined since peaking in 2005, but we must continue to work to reduce our dependence on other nations for our energy needs. We must utilize domestic resources in an environmentally responsible manner, find newer, better uses for older forms of energy production, and invest in sustainable clean energy technologies to reduce our greenhouse gas emissions.

However, the question today is whether increasing liquefied natural gas, or LNG, exports help us achieve this goal of eventual energy independence. Since no LNG export facilities currently exist in the continental United States, export capacity will not even be possible until 2017 at the earliest. So we are talking about long-term goals here. This provides ample opportunity to take our time and think through the potential problems that may arise as a result of the expansion of LNG exports.

I must express my concerns about the dangers of hydraulic fracturing as a method for cultivating natural gas. Currently, federal regulations governing the safe disposal of hazardous waste explicitly exempt oil and natural gas producers and geothermal energy. This means that fracking waste materials are not subject to the standards established in 1976 by Congress and the EPA, under the Resources Conservation and Recovery Act (RCRA). Because of this exemption, thousands of Americans must face exposure to toxic, flammable chemicals on a daily basis. This amendment is out of date and unnecessary, which is one of the reasons why I introduced the CLEANER Act last year to close this loophole. Before we even begin to discuss the expansion liquefied natural gas exports, we must first take action to make natural gas collection a safe and regulated process.

I am not opposed to discussing ways to expand our energy independence, but ask that we keep in mind the importance of accompanying regulation in order to preserve the health and safety of millions of Americans.

Thank you and I yield back.

Administration Officials Recognize the Benefits of U.S. Natural Gas Exports

President Barack Obama, in a joint statement with European leaders on March 26, 2014:

*"The situation in Ukraine proves the need to reinforce energy security in Europe and we are considering new collaborative efforts to achieve this goal. We welcome the prospect of U.S. LNG exports in the future since additional global supplies will benefit Europe and other strategic partners."*¹

Secretary of State John Kerry, in a joint statement with European energy leaders on April 2, 2014:

"Developments in Ukraine have brought energy security concerns to the fore and prove the need to reinforce energy security in Europe."

*"The Council further welcomed the prospect of US LNG exports in the future since additional global supplies will benefit Europe and other strategic partners."*²

Carlos Pascual, former American Ambassador to Ukraine and head of the State Department's Bureau of Energy Resources, in a statement to the New York Times on March 5, 2014:

Mr. Pascual said that although the prospective American exports would not immediately solve the problems in Europe, "it sends a clear signal that the global gas market is changing, that there is the prospect of much greater supply coming from other parts of the world."

*"This is a radically changed market. Our challenge is to look at U.S. production in the global context and understand how we can influence what happens."*³

Tom Donilon, then-National Security Advisor to President Obama, in remarks at Columbia University on April 24, 2013:

"...the development of a more global natural gas market benefits the U.S. and our allies. We have a strong interest in a world natural gas market that is well supplied, diverse, and efficiently priced. Increased U.S. and global natural gas production can

¹ Office of the Press Secretary, *EU-US: Joint Statement*, The White House (Mar. 26, 2014), available at <http://www.whitehouse.gov/the-press-office/2014/03/26/eu-us-summit-joint-statement>.

² Office of the Spokesperson, *Joint Press Statement EU-U.S. Energy Council*, U.S. Dept. of State (Apr. 2, 2014), available at <http://www.state.gov/r/pa/prs/ps/2014/04/224288.htm>.

³ Coral Davenport and Steven Erlanger, *U.S. Hopes Boom in Natural Gas Can Curb Putin*, N.Y. Times (Mar. 5, 2014), available at <http://www.nytimes.com/2014/03/06/world/europe/us-seeks-to-reduce-ukraines-reliance-on-russia-for-natural-gas.html>.

enhance diversity of supply, help delink gas prices from expensive oil indexed contracts, weaken control by traditional dominant natural gas suppliers..."⁴

Bill Richardson, former Secretary of Energy under President Bill Clinton, in the Financial Times on November 21, 2013:

"Poland, Ukraine and the other countries in the region are now counting on American LNG exports to put an end to Russia's gas monopoly and energy diplomacy. Therefore, Washington should open up US natural gas exports and authorise more gas liquefaction terminals. The government and gas exporters should jointly launch a strategic initiative to create the conditions that will secure gas shipments to Poland, Ukraine and the Baltic. Washington should demonstrate its support of these countries' energy independence not only with words, but also concrete actions."

*"Exporting LNG from the US to Europe could create a triple-win situation. It will be a win for the US as we create jobs in the energy sector. It will be a win for our European partners, who will lower their gas bills, lift competitiveness and strengthen their energy security. This, in turn, is another win for the US economy. Europe is our number one partner; if we can help it recover from the economic crisis and reinforce the Euro-Atlantic partnership, this will have a direct impact on our national economy and job market. There are few foreign policy "no-brainers", but exporting LNG to Europe – particularly eastern Europe – is definitely one of them."*⁵

Bill Richardson, former Secretary of Energy under President Bill Clinton, and Spencer Abraham, former Secretary of Energy under President George W. Bush, in the Financial Times on December 20, 2012:

"We believe, however that LNG exports can buttress geopolitical leadership and trade, while at the same time continuing to support low domestic natural gas prices and a renaissance in domestic manufacturing. In addition LNG exports offer the potential for lower global carbon emissions."

*"Meanwhile, by becoming an exporter, the US would fill a vital role for its allies in Europe and Asia, many of which are dangerously dependent for natural gas on foreign powers frequently hostile to US interests. Reliance on Russian gas in Ukraine and EU would likely to diminish, for example."*⁶

⁴ Office of the Press Secretary, Remarks by Tom Donilon, National Security Advisor to the President At the Launch of Columbia University's Center on Global Energy Policy, The White House (Apr. 24, 2013), available at <http://www.whitehouse.gov/the-press-office/2013/04/24/remarks-tom-donilon-national-security-advisor-president-launch-columbia->

⁵ Bill Richardson, *America should not try to keep its shale gas to itself*, Financial Times (Nov. 21, 2013), available at <http://www.ft.com/intl/cms/s/0/2617d466-52c3-11e3-8586-00144feabdc0.html#axzz30JWwqkTC>.

⁶ Bill Richardson and Spencer Abraham, *Shale gas exports will aid US and its allies*, Financial Times (Dec. 20, 2012), available at <http://www.ft.com/intl/cms/s/0/d634d316-4a0f-11e2-a7b1-00144feab49a.html#axzz30JWwqkTC>.