



U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND COMMERCE
CHAIRMAN FRED UPTON

The Policy Paper Series

Transforming Ideas Into Solutions

Prosperity at Home and Strengthened Allies Abroad – A Global Perspective on Natural Gas Exports



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Executive Summary

The rapid growth in American natural gas production offers a variety of opportunities, including the chance for America to become a natural gas exporting nation. Doing so would benefit the U.S. as well as our allies and trading partners, many of who have been vocal in their support of such exports.

The economic benefits of exporting liquefied natural gas (LNG) outweigh the costs, according to a report conducted for the Department of Energy (DOE). This report found that America can produce more than enough natural gas to meet domestic demand affordably while also supporting export markets. The report further concluded that the net benefits of exports apply to consumers as well as the overall economy, and that these benefits increase along with the level of exports. Other studies have reached similar conclusions.

Although the economic benefits of LNG exports are significant, they may well be exceeded by the geopolitical benefits. By becoming a natural gas exporter, the U.S. can supplant the influence of other exporters like Russia and Iran while strengthening ties with our allies and trading partners around the world. U.S. LNG can also help the developing world by providing a much-needed source of affordable energy, and offer those countries pursuing environmental objectives the option of using clean-burning natural gas.

However, time is of the essence and DOE's slow approval process for LNG exports is squandering the chance to maximize our energy advantage. DOE has only made five decisions since the first non-FTA application was submitted over three years ago, and more than 20 applications still await action. America's window of opportunity will not remain open for long. In the face of continued delays, nations with near-term energy needs will be forced to look elsewhere for supplies, LNG facilities will have difficulty securing financing in an uncertain regulatory environment, and America will see greater competition from other LNG exporters. To avert these risks to our global LNG export leadership potential, the committee urges DOE to approve all pending LNG export applications by the end of 2014. In addition, the committee will consider legislative reforms to streamline and expedite the approval process to better reflect America's new energy abundance and the benefits of natural gas exports.

Introduction: From Scarcity to Abundance

The House Committee on Energy and Commerce has focused considerable attention on the biggest emerging energy story of this generation – the growth of domestic natural gas and oil production. Long-held beliefs in the inevitable decline of American gas and oil output have given way to the new reality of increasing abundance. These energy sources, along with coal, nuclear, and renewables, can provide the nation with the benefits of a diverse and plentiful energy portfolio for decades to come.

The resurgence of natural gas and oil is an extremely important transformation, but it is one for which Washington has yet to adjust. Many outmoded federal policies, based on

the old assumptions of energy scarcity and rising imports, are still in force and stand in the way of the opportunities before us. This committee has taken the lead in reviewing these policies and fighting for needed changes.

Several hearings have been devoted to various aspects of the nation's expanding natural gas and oil abundance, with a particular emphasis on the legal and regulatory changes necessary to realize the full potential of these resources.

The Subcommittee on Energy and Power began the 113th Congress with a hearing entitled [“American Energy Security and Innovation: An Assessment of North America's Energy Resources.”](#) In this overview of the resource base, the Energy Information Administration (EIA) described the dramatic increases in domestic natural gas and oil production – all the more dramatic given that production had been falling for decades and many in Washington assumed that continued declines were unavoidable. Instead, the U.S. has rapidly reversed the declines and emerged as the world's largest producer of natural gas and oil in 2013.¹ The production increases show no signs of slowing down and should continue in the years ahead. Renowned energy analyst Dr. Daniel Yergin estimates that this energy revolution already supports 1.7 million jobs (making it one of the few employment bright spots in recent years) and could support 3 million jobs by 2020.²

The impressive rise in natural gas output since 2005 has been made possible by American innovations in hydraulic fracturing and horizontal drilling. EIA's rising estimates of natural gas reserves strongly suggest that American output can exceed domestic needs into the future.³ Specifically, it projects a 56 percent production increase by 2040, remaining well above projected domestic demand.⁴ U.S. natural gas imports, which had previously been high enough to noticeably impact global supplies, have declined dramatically and are now negligible.

However, the federal government has failed to encourage this energy transformation. In fact, due to access restrictions that keep vast areas off-limits⁵, natural gas and oil production on federally controlled lands and offshore areas has not increased at all. In the case of natural gas, the Congressional Research Service reports that “overall, U.S. natural gas production rose by 4 trillion cubic feet (tcf) or 20 percent since 2007, while production on federal lands (onshore and offshore) fell by about 23 percent and production on non-federal lands grew by 40 percent.”⁶ The already-impressive net growth

¹See [“U.S. expected to be largest producer of petroleum and natural gas hydrocarbons in 2013.”](#) U.S. Energy Information Administration, October 4, 2013.

² [Testimony](#) of Dr. Daniel Yergin, IHS, Inc., before the House Energy and Commerce Committee. February 5, 2013.

³ [Testimony](#) of Adam Sieminski, EIA, before the House Energy and Commerce Committee. February 5, 2013.

⁴ See [“Annual Energy Outlook 2014 Early Release Overview.”](#) U.S. Energy Information Administration.

⁵ [Testimony](#) of Mary Hutzler, Institute for Energy Research, before the House Energy and Commerce Committee. February 5, 2013.

⁶ Congressional Research Service, [“U.S. Crude Oil and Natural Gas Production in Federal and non-Federal Areas,”](#) March 7, 2013.

in natural gas supplies from state and private lands could be considerably enhanced if federal lands were more fully brought into the mix.

Subsequent hearings explored the tremendous economic potential of this resource bounty. For example, a joint hearing by the Subcommittee on Commerce, Manufacturing, and Trade and the Subcommittee on Energy and Power, entitled “[U.S. Energy Abundance: Manufacturing Competitiveness and America’s Energy Advantage](#),” detailed the benefits of a steady stream of low-priced natural gas to American manufacturers competing on a global stage. Chemical and fertilizer producers that use natural gas as a feedstock are benefitting tremendously. Indeed, these facilities – and their jobs – are coming back to the U.S. after years of having been outsourced. They may soon be joined by companies that split molecules of natural gas into various chemicals in a process known as “cracking.” These chemicals, such as ethylene and their derivatives, are then used by the manufacturing sector to make a variety of plastics and consumer products. Investments in these facilities in America are being considered for the first time in over 50 years.

Those who make the equipment used in the energy boom – everything from drilling equipment to pipes – have also prospered. And most other manufacturers benefit from lower-priced electricity produced from natural gas, which alongside coal and other sources, hold the potential to secure affordable electricity now and well into the future.

But once again, ill-suited federal policies frequently act as an impediment. This new energy needs new infrastructure to deliver it to the factories, power plants, and other end users that benefit from it. However, creating this architecture of abundance is slowed at every step by archaic federal rules that can cause years of delays and even block some pipeline and power line projects outright. Most notably, the Keystone XL pipeline expansion project to bring 800,000 additional barrels of Canadian oil to American refineries has been delayed for nearly five years by the Obama administration. Keystone XL – with its potential to create thousands of jobs while supplanting Middle East oil imports – may have garnered most of the attention, but many other infrastructure projects that could help make up the architecture of abundance face similar roadblocks.

The House approved the committee’s bipartisan bill, [H.R. 3, the “Northern Route Approval Act,”](#) to approve Keystone XL. The same is true of [H.R. 1900, the “Natural Gas Pipeline Permitting Reform Act,”](#) that would expedite and streamline future natural gas pipeline approvals. The committee has also introduced [H.R. 3301, the “North American Energy Infrastructure Act,”](#) to reduce unnecessary red tape for authorizations of energy infrastructure projects that cross the Canadian or Mexican border in order to create a more robust North American energy market. The committee continues to explore other options to eliminate bottlenecks and commence building the architecture of abundance.

The Benefits of Natural Gas Exports

Perhaps the most exciting opportunity presented by this new energy abundance is the potential for America to increase energy exports. We have long been a coal-exporting nation, but now we are in a position to be a natural gas exporting nation as well. In fact, the

price of natural gas in many overseas markets is considerably higher than in the U.S., creating the potential for very profitable exports, even after transportation costs are taken into account (Figure 1).



A Subcommittee on Energy and Power hearing, entitled “[U.S. Energy Abundance: Exports and the Changing Global Energy Landscape](#),” focused on the potential benefits of energy exports, including domestic jobs and improved balance of payments. An analysis conducted by NERA for the Department of Energy concludes that America has more than enough natural gas to meet its domestic needs affordably while also supporting export markets, and that doing so would be a net benefit to the American economy.⁷ Other studies have drawn similar conclusions.⁸

The U.S. has a tremendous resource base of low-cost natural gas. According to the congressional testimony of ICF Resources, the remaining technically recoverable U.S. natural gas resource base is 3,850 trillion cubic feet (tcf). Over 1,200 tcf is available in the Lower-48 at \$5.00 per million British Thermal Units (MMBtu).⁹ To put this in perspective, the U.S. used 25.6 tcf of natural gas in 2012. Driven mainly by increasing natural gas demand from the electricity sector, the Energy Information Administration predicts that consumption will rise to 31.6 tcf in 2040. Domestic production is expected to keep pace with the new demand, growing to 37.5 tcf in 2040. EIA predicts that the U.S. will be a net exporter of natural gas by 2018, with exports of LNG from new liquefaction capacity rising to 3.5 tcf in 2029 and remaining at that level through 2040.¹⁰ Overall, only a fraction of the

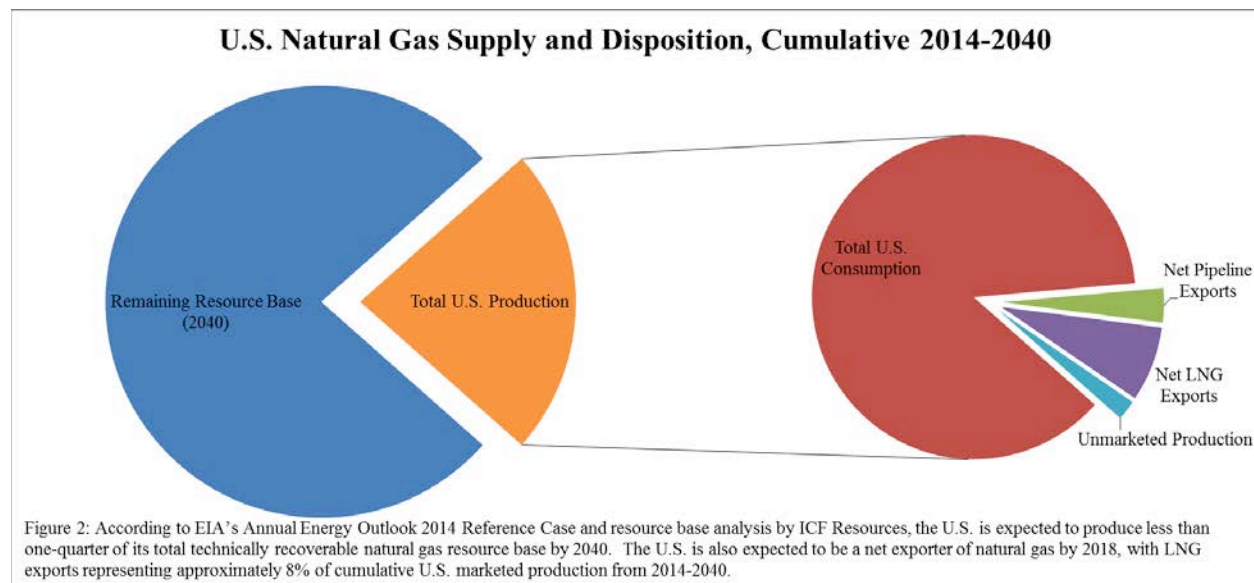
⁷ See “[Macroeconomic Impacts of LNG Exports from the United States](#),” NERA Economic Consulting, December 3, 2012.

⁸ See “[Liquid Markets: Assessing the Case for U.S. Exports of Liquefied Natural Gas](#),” Brookings Institution, May 2, 2012; “[New Dynamics of the U.S. Natural Gas Market](#),” Bipartisan Policy Center, May 2013; “[Liquefied Natural Gas Exports: America's Opportunity and Advantage](#),” ICF International, December 2013.

⁹ [Testimony](#) of Mr. Harry Vidas, ICF International, before the House Energy and Commerce Committee. February 5, 2013.

¹⁰ See “[Annual Energy Outlook 2014 Early Release Overview](#),” U.S. Energy Information Administration.

nation's vast natural gas resource base will be produced by 2040, and only a fraction of that will go to LNG exports (Figure 2).



Some policymakers have expressed concern over the price impacts of allowing U.S. natural gas exports. However, the body of evidence, including the study requested by DOE, suggests that price impacts will be moderate and unlikely to be driven by the volume of U.S. gas exported. As NERA found, the market limits how high U.S. natural gas prices can rise under pressure of LNG exports because importers will not purchase U.S. exports if the U.S. wellhead price rises above the cost of competing suppliers. The same study also found that across all scenarios, including allowing unlimited exports, U.S. economic welfare consistently increases as the volume of natural gas exports increased.¹¹

But yet again, federal red tape threatens to get in the way. To be exported, natural gas must be transformed into a liquid at very low temperatures, and loaded onto ships for export. The specialized LNG export facilities that can perform these tasks are an important part of the architecture of abundance, but building and operating them is subject to a very cumbersome federal permitting process.

DOE plays a critical role in enabling the U.S. to take advantage of the new era of energy abundance by regulating the trade of natural gas. DOE exercises jurisdiction over the commodity itself (natural gas), whereas other federal agencies, such as the Federal Energy Regulatory Commission (FERC), state, and local bodies have jurisdiction over the facilities used to export the commodity. DOE's authority arises under the Natural Gas Act, which sets the standard for review of most LNG export applications. Applications to countries with which the U.S. has a Free Trade Agreement (FTA) in effect are granted

¹¹ See "[Macroeconomic Impacts of LNG Exports from the United States](#)," NERA Economic Consulting, December 3, 2012. Pg. 6.

automatically. The process is much more complicated and uncertain for applications involving the majority of countries, those with which the U.S. does not have a FTA.

The Natural Gas Act establishes a rebuttable presumption that a proposed export of natural gas to a non-FTA country is in the public interest; however, the statute does not define “public interest” nor identify the criteria that must be considered. As a result, DOE identified a growing list of factors, including economic impacts, international impacts, and security of supply. In addition, DOE relies on outdated 1984 Policy Guidelines related to the *import* of natural gas (at the time, it was believed that the U.S. would need to import more LNG) to weigh these factors. Overall, DOE’s standard of review is unpredictable, evolving, and has been slow to reflect the nation’s newfound natural gas abundance and the growing benefits of energy exports.

DOE’s adopted procedures, including its role as a cooperating agency with FERC for the purpose of complying with the National Environmental Policy Act (NEPA), present unique challenges, as recently demonstrated in DOE’s order conditionally granting Freeport LNG authorization to export.¹² Seemingly new criteria were added, and DOE partially denied the requested volume of natural gas not on the basis of previously stated public interest criteria,¹³ but because of a discrepancy identified in Freeport’s filing before FERC relating to the size of the facility and the environmental review process.

DOE appears to be moving away from the market principles that once guided the process. In its 1984 Policy Guidelines on LNG imports, the agency stated that “the market, not government, should determine the price and other contract terms of imported natural gas ... The federal government’s primary responsibility in authorizing imports will be to evaluate the need for the gas and whether the import arrangement will provide the gas on a competitively priced basis for the duration of the contract while minimizing regulatory impediments to a freely operating market.”¹⁴ DOE has seemingly abandoned this limited approach in favor of lengthy and comprehensive reviews of each export application under which almost any factor can be fair game. This unsettled review process has led to extensive delays and additional uncertainty, with more than 20 applications currently pending before the agency, some for over a year.¹⁵

Among the justifications for DOE’s cautious and case-by-case approach is the concern that if every application for export were approved, the resulting exports would create a substantial draw on domestic supplies of natural gas and cause a significant price

¹² DOE/FE Order No. 3357. Available at: <http://energy.gov/sites/prod/files/2013/11/f5/FE%20DOCKET%20NO.%2011-161-LNG%20ORDER%20NO.%203357.pdf>

¹³ [Testimony](#) of Christopher Smith, U.S. Department of Energy, before the House Energy and Commerce Committee. June 18, 2013.

¹⁴ Department of Energy 1984 Policy Guidelines. Available at: <http://www.fossil.energy.gov/programs/gasregulation/authorizations/policy.pdf>

¹⁵ Applications received by DOE/FE to Export Domestically Produced LNG from the Lower-48 States. Available at: <http://energy.gov/sites/prod/files/2014/01/f6/Summary%20of%20LNG%20Export%20Applications.pdf>

increase. However, the previous record for FERC-approved LNG terminals does not bear this out. During the years when the U.S. faced the daunting task of building more import terminals in the face of declining production, there were approximately 33 applications that entered into the FERC application process. However, only five of these onshore import facilities were ultimately constructed.¹⁶ The reasons why only five were constructed vary, but given the complexity and costs of LNG projects, variables such as how many projects the market will ultimately support, and overcoming the federal, state, and local regulatory barriers to actually constructing a facility dictate that an approval to export LNG by no means guarantees a facility will be constructed or operational.¹⁷

Whether these regulatory hurdles comply with the General Agreement on Tariffs and Trade and other trade agreements is a matter of considerable dispute.¹⁸ As one of the 159 member nations of the World Trade Organization (WTO), the U.S. is obligated to comply with these agreements. Ironically, the U.S. has expressed strong objections when other nations restrict exports of natural resources – such as OPEC’s oil embargo of 1973-74 and ongoing efforts by China to limit rare earth exports – yet, DOE may be doing much the same by erecting regulatory barriers to LNG exports through its current interpretation of the Natural Gas Act.¹⁹

It should be noted that LNG facilities are multi-billion dollar capital investments that take several years to build, so any regulatory uncertainty as to when they will be approved and to whom they are allowed to sell can have a chilling effect on investment.

A hearing entitled, [“U.S. Energy Abundance: Regulatory, Market, and Legal Barriers to Export,”](#) focused on these extensive regulatory obstacles. Many experts see them as relics from a time of perceived energy scarcity and fears of domestic shortages, and believe that they should be updated to take full advantage of LNG export opportunities.²⁰

The Global Perspective on LNG

While these hearings emphasized the potential economic benefits of LNG exports, they also touched on the tremendous geopolitical benefits. Indeed, many believe that important foreign policy goals can be more effectively advanced through increased energy trade than through diplomacy or foreign aid programs. Further, an increased American contribution to global energy markets can enhance national security by supplanting the

¹⁶ Map of North American LNG Terminals. Available at: <http://energy.gov/sites/prod/files/2013/04/f0/LNG%20Import%20%26%20Export%20Terminal%20Maps%2012-18-2012.pdf>

¹⁷ Interviews with Marc Robinson, former Director, Office of Energy Programs, Federal Energy Regulatory Commission, January 2014.

¹⁸ See [“LNG and Coal: Unreasonable Delays In Approving Exports Likely Violate International Treaty Obligations”](#) National Association of Manufacturers, November 2013.

¹⁹ See [“Liquefied Natural Gas Exports: An Opportunity for America”](#), Peterson Institute for International Economics, February 2013.

²⁰ [Testimony](#) of Lou Pugliarese, Energy Policy Research Foundation, Inc., before the House Energy and Commerce Committee. June 18, 2013.

influence of the troublesome participants currently dominating those markets, especially Iran and Russia.²¹

To fully understand the global implications of LNG exports, it is critical to hear directly from those allies and trading partners around the world that are seeking this American energy. By listening to these voices, we can better understand the energy problems they face, and why they see U.S. LNG as an important part of the solution. For this reason, on October 10, 2013, the Subcommittee on Energy and Power hosted a forum, entitled [“U.S. Energy Exports: Geopolitical Implications and Mutual Benefits.”](#) The participants, representing the Commonwealth of Puerto Rico and many foreign nations included:

- Czech Republic: Joroslav Zajicek, Deputy Chief of Mission,
- Haiti: Rene Jean-Jumeau, Minister Delegate to the Prime Minister, Charge of Energy Security,
- Hungary: Anita Orban, Ambassador-at-Large for Energy Security of the Ministry of Foreign Affairs,
- India: Taranjit Singh Sandhu, Deputy Chief of Mission,
- Japan: Yasushi Akahoshi, Minister, Economy, Trade, Industry and Energy,
- Lithuania: Zygimantas Pavilionis, Ambassador to the United States and Mexico,
- Puerto Rico: Dr. Efrain O’Neill-Carillo, Senior Energy Advisor to the Governor,
- Singapore: Ashok Kumar Mirpuri, Ambassador to the United States,
- South Korea; Ahn Ho-Young, Ambassador to the United States, and
- Thailand: Saroj Thanasunti, Charge d’Affaires.



²¹ [Testimony](#) of Amy Myers Jaffe, University of California, Davis, before the House Energy and Commerce Committee. May 7, 2013.

These nations vary greatly in terms of their current energy supply challenges and expected future needs. They also differ in their levels of economic development, national security concerns, environmental policy priorities, and other energy-related factors. But they all have one thing in common – they are dependent on energy imports and have expressed a strong interest in LNG from the U.S.

Increased U.S. Global Influence From LNG Exports

Electricity can be produced from a variety of sources – coal, natural gas, and nuclear, as well as renewable sources like hydroelectric, wind, and solar. Different nations (and regions within nations) strive to achieve an electricity portfolio best suited to their particular circumstances to ensure reliability and affordability. Currently, many nations would like to add more natural gas into their electricity mix given its affordability and low emissions, and U.S. LNG is widely seen as an excellent source of new supply.

In a geopolitical context, the benefits of diversity apply to suppliers as well as supplies, and the added option of U.S. LNG enhances both kinds of diversity. This is especially important to Central and Eastern European nations heavily reliant on Russia for natural gas. This dependence has not only led to higher prices, but also to the ability of Russia to exert political pressure on these nations.

Zygimantas Pavilionis, Lithuanian Ambassador to the United States and Mexico, noted his nation's heavy reliance on natural gas from Russia's Gazprom, adding that "we pay the highest price for gas in the world." Beyond costs, he also discussed incidences of Russia using its energy leverage to exert pressure over Lithuania on political matters, especially those involving Lithuania's efforts to break free from the Russian sphere of influence and align more closely with the European Union (E.U.) and America. Pavilionis added that Russia has a history of threatening to cut off supply to Lithuania and other nations and has occasionally followed through on those threats. "An ability to import natural gas from the U.S., even if very small amounts by U.S. standards, would make a huge impact on the Lithuanian gas market and allow the nation to develop a reliable alternative to Russian gas," he concluded.

Jaroslav Zajicek, Deputy Chief of Mission for the Czech Republic, relayed similar experiences. He explained that the sharp drop in U.S. imports of natural gas is already helping by freeing up additional supplies from the Caribbean and other sources that were once destined for the U.S. but now serve the Western European market. "We have already seen examples where the Russian negotiating position during contract-renewal talks was weakened thanks to decreasing prices on the markets in Western Europe," he said. With regard to the threat of Russian supply disruptions to the Czech Republic, Zajicek urged that "if supplies get cut, if our security is in threat, we have to stand for each other. [U.S.] LNG would benefit the common security of the whole transatlantic family."

Many Asian nations are highly dependent on imports for their energy needs, much of which comes from the unstable Middle East. For this reason, the prospect of U.S. LNG is

especially valued for its stability. For example, Yasushi Akahoshi, Japan's Minister of Economy, Trade, Industry and Energy, said that "half of the expanded demand for natural gas is coming from the Middle East, and our dependence on that region is rising." He concluded that "the import from the U.S. would be the most reliable supply, which could bring about less dependency on the Middle East." Taranjit Singh Sandhu, India's Deputy Chief of Mission, stated that U.S. LNG exports "would provide a steady, reliable supply of clean energy and help diversify our imports from our traditional suppliers."

It should also be noted that many of the nations participating in the forum have cooperated with the U.S. to impose economic sanctions on Iran. Quite arguably, American self-sufficiency in natural gas has made it easier for these nations to do so since they now are less dependent on Iranian natural gas.²²

U.S. LNG exports would serve to strengthen this kind of cooperation. Ashok Kumar Mirpuri, Singapore's Ambassador to the United States, said, "Increased LNG exports to Asia would further anchor the U.S. economic presence and further contribute to enhancing the region's energy security. In doing so, the U.S. would strengthen its partnerships in the region, serving regional stability and its global interests." Similarly, Anita Orban, Hungary's Ambassador-at-Large for Energy Security of the Ministry of Foreign Affairs, said that "the United States can advance its own foreign policy objectives with a new tool which is called energy diplomacy." In effect, rising American natural gas exports would lead to rising American global influence, a development that these nations welcome.

Global Economic Development Benefits

America gains from a stronger world economy, and LNG exports can play a role in accomplishing that end. This is particularly true of poorer countries for which affordable energy is a key component of economic development. These countries are especially interested in LNG because it is cheaper than the energy sources they currently rely upon.

Rene Jean-Jumeau, Haiti's Minister Delegate to the Prime Minister, sees U.S. LNG exports as a means for his country to transition "from an aid based relationship to a trade based relationship." He said, "The question of energy is central to every type of issue of development that we can consider." Jean-Jumeau added that replacing the oil Haiti currently uses to generate electricity with natural gas would lead to "a reduction in the cost of electricity by at least 30 percent." This would have the double benefit of making electricity more accessible to the citizens of Haiti (a majority of Haitians do not yet have access to it), while also ensuring the low energy prices necessary to attract investment in manufacturing.

Indeed, LNG exports to developing nations would help accomplish many of the same economic goals for which direct aid was intended.

²² [Testimony](#) of Amy Myers Jaffe, University of California, Davis, before the House Energy and Commerce Committee. May 7, 2013.

Efrain O'Neill-Carillo, Senior Energy Advisor to the Governor of Puerto Rico, also emphasized the benefits of affordable energy from LNG to low-income populations, along with the energy security benefits. "Lower electricity costs in Puerto Rico will mean better socio-economic conditions, lower social problems, increase our energy security and overall security in the region." He noted that Puerto Rico produces 70 percent of its electricity from oil, and that "when the average price of a barrel of oil increases by \$10, it is estimated that \$700 million dollars leave Puerto Rico's economy every year."

India's Mr. Sandhu similarly noted that "there is a price advantage in LNG imports from the U.S. compared to current prices from traditional suppliers, which is an important factor in the energy policy decision-making for a developing country like India."

Environmental Benefits

Nations around the world have varying energy policy priorities, which in addition to securing long-term affordable energy may include reducing greenhouse gas emissions or reducing air pollution from energy use. But many have limited options for moving to lower emitting sources of electrical generation. For example, Japan has suspended its nuclear power program in response to the Fukushima Daiichi accident. Nations like Singapore have insufficient land for renewable sources, while others like Haiti must first expand baseload power before accommodating intermittent renewables like wind and solar. Natural gas can affordably provide a baseload source of electricity and do so with the added benefit of lower emissions.

America can help many of these nations achieve their environmental objectives simply by making LNG available. For example, in considering Japan's need for non-nuclear alternatives, Minister Akahoshi said that using natural gas "would contribute to emissions reductions, which is one reason we would like to expand use of natural gas from the U.S." Japan is one of many countries around the world that must rely on crude and fuel oil in order to meet part of their electricity demands due to an inability to secure enough natural gas supplies. South Korean Ambassador Ahn Ho-Young noted that "we made a commitment in Korea to reduce the emissions of carbon dioxide by year 2020, a 30 percent reduction. In order to do it, we will have to ... further increase use of LNG. This is the reason we are encouraged by the new source of energy." India's Mr. Sandhu added that "LNG is an important component of our environmentally sensitive energy security strategy."

For Puerto Rico, there is little choice but to move from oil-burning facilities to natural gas to comply with the Clean Air Act. Mr. O'Neill-Carillo explained, "Puerto Rico needs LNG by mid-2015 due to EPA's regulations."

Conclusion: The Need For Certainty From the U.S. and Updating of Existing Federal Authorities

Our friends and allies around the globe desperately need a more stable, reliable, and affordable supply of natural gas, and American consumers and manufacturers need continued robust demand to bring additional resources into competitive production. The

U.S. has the opportunity to be the world's preferred supplier, and the case for mutually beneficial trade is very strong.

However, because of regulatory delays and uncertainty, many nations believe they cannot rely on U.S. LNG. Some of these countries need additional energy in the near term, thus the regulatory delays may force them to pursue less desirable and more expensive options. "[T]here is a window of opportunity here for the next few years which may easily be gone in a couple of years," said Ambassador Orban of Hungary. It should be noted that approvals of export applications can have an impact well before the LNG actually comes online. Orban added that "the very fact that American LNG could appear on the Central European and the European market would give us a negotiating position vis-a-vis our traditional supplier which would result in immediately lower prices."

Other nations' LNG import facilities, as with U.S. export facilities, are expensive to build. The nations undertaking these projects cannot move forward without assurances that U.S. LNG will in fact be sold to them and that they will not be subject to years of regulatory limbo. Saroj Thanasunti, Thailand's Charge d'Affaires, said, "We are seriously considering the potential to import LNG from the United States; however, this would require a huge amount of investment, and that investment needs some levels of certainty and predictability that LNG from the U.S. will be allowed to be exported." Other nations expressed similar reservations.

For these reasons, as well as the domestic benefits outlined earlier, the committee urges DOE to approve all pending LNG export applications by the end of 2014. Doing so would maximize the benefits of natural gas exports, both for the U.S. and for our allies and trading partners.

The committee is also considering a range of potential legislative options to remedy the regulatory obstacles. This includes revisions to the Natural Gas Act to require a more certain and timely DOE approval process for natural gas export applications – one that better reflects the new era of natural gas abundance and benefits of energy trade while recognizing that time is of the essence. It may also include a shift in focus away from a recipient nation's FTA status to the much more inclusive benchmark of whether it is a member of the WTO.

Given the scope of potential benefits from LNG exports, and the relatively narrow window to maximize the U.S. energy advantage, it is imperative that the regulatory process be expedited so that these benefits can be realized. The committee will continue to pursue forward-looking policies to help realize the nation's newfound energy potential. The future is bright with the right policies in place.