



**Statement before the House Ways and Means Subcommittee
on Trade**

***“TRADE IMPLICATIONS OF U.S. ENERGY
POLICY AND THE EXPORT OF LIQUEFIED
NATURAL GAS”***

A Statement by

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Good afternoon Chairman Nunes, Ranking Member Rangel, and members of the Committee. Thank you for the opportunity to testify today on the trade implications on liquefied natural gas (LNG) exports. It is an honor to appear before the Subcommittee and address this timely topic. I would like to focus my remarks this afternoon on the geopolitical impacts of the U.S. entry into the global LNG market, and the prospects for U.S. LNG exports to enhance global energy security. For the purpose of brevity I will limit my remarks to the natural gas related impacts and not discuss the equally impressive tight oil production phenomenon in the United States.

The extraordinary pace and scale of U.S. natural gas production has managed to surprise even seasoned energy observers. As recently as 2005, U.S. natural gas production was declining. The U.S. Energy Information Administration (EIA) then projected that the United States would need to import 7.89 trillion cubic feet (tcf) of gas in 2020 (or 26 percent of total consumption in 2020) just to keep up with rising demand. In 2005, there were 32 LNG *import* applications before the Department of Energy. Today, due to the ingenuity of American industry and the right market conditions, we are faced with ample supplies of natural gas.

EIA projects that shale gas alone will account for about 40 percent of all U.S. gas production this year and that share is expected to rise to over 53 percent by 2040.¹ EIA has been consistently revising its production estimates upwards—between last year and this year, natural gas production estimates have risen 11 percent -- and currently projects that the U.S. will be a net natural gas exporter by 2018. As a consequence of the newfound resource abundance, natural gas prices in the United States have plummeted from \$13 per million British thermal units (Mmbtu) in 2008 to around \$4.30/Mmbtu today. Similarly the U.S. natural gas reserve numbers and technically recoverable resource base keep expanding. Today the U.S. Department of Energy has 24 applications for export to non-Free Trade Agreement countries, 7 of which have been approved.²

Few doubt that unconventional gas resources will continue to shape energy markets in new and important ways beyond what has already occurred, but the ultimate scope and pace of change remains unclear. It is important to keep in mind that significant uncertainty remains, especially about the production potential beyond North America. The rapid onset of this trend in North America and the unknown nature of its future elsewhere make assessing the long-term geopolitical impacts of this resource a challenging and uncertain task.

Still, amidst the uncertainty, we can say with confidence that the unconventional gas boom and resulting future LNG exports are likely to have profound impacts for the United States and for global markets. These impacts can be summarized in four broad categories: energy policy reconsideration, competitiveness issues, perceptions of leverage, and resource optimism.

First, the ultimate impact of unconventional gas on global markets and geopolitics depends not just on the U.S. but also on what policy decisions other countries make. The new technological

¹ All unconventional gas (tight gas, shale, and coalbed methane) accounts for two-thirds of U.S. gas production this year and that share is expected to rise to over 80 percent by 2040.

² DOE Office of Fossil Energy LNG Export Application Summary
<http://energy.gov/sites/prod/files/2014/03/f13/Summary%20of%20LNG%20Export%20Applications.pdf>

applications utilized in the shale gas plays in the United States have the potential to spread beyond North America and increase gas supplies globally. A recent world hydrocarbon resource study by the EIA and Advanced Resources International estimates global shale gas resources at 7,299 tcf—an astronomical number, especially compared with estimates just a few years ago. The study notes that shale gas resources contribute an impressive 30 percent to overall known natural gas resources. Remarkably, the United States places fourth on the list of world shale gas resource holders, behind China, Argentina, and Algeria. To date, the production of shale gas has been limited mostly to the United States and to a lesser degree Canada. Other countries are starting to explore their own resource base, evaluate commercial, policy, and logistical options for commercial production, and consider what the potential for better supplied gas markets means for their energy strategy. How other countries respond will have a significant impact on the extent and scope of the geopolitics of energy trade.

Second, on the domestic front, energy in general, natural gas in particular, has been a bright spot in an otherwise uneven economic recovery. Cheap and abundant natural gas has boosted the U.S. economy, making export-oriented industries with high energy costs more competitive on the global market. Unconventional natural gas has also created thousands of jobs and contributed to the sea change underway in the electric and other industries, as well as helped the United States reduce greenhouse gas emissions (along with lower demand and energy efficiency improvements). North America is currently among the most attractive and competitive places in the world to locate energy-intensive endeavors. This boost in relative U.S. competitiveness is not lost on countries with whom we are carrying out trade negotiations, many of whom exist in parts of the world with much higher natural gas prices.

Third, by taking itself out of the LNG import picture, the United States has freed up supplies of LNG to go elsewhere—and traditional U.S. suppliers are increasingly servicing other markets. The shale gas supplies from the Marcellus alone equal the entire natural gas export capacity of Qatar, the world's second largest natural gas exporter in 2012. New natural gas production is also backing out traditional Canadian pipeline imports to the U.S., which has in turn spurred plans for several LNG export projects from Canada. This surge in production is a positive development for global gas consumers because the anticipation of extra supplies has given previously captive natural gas buyers additional leverage in negotiations for long-term gas supply contracts. This contract flexibility may be limited depending on circumstance, domestic market structures, and other market forces, but it is already apparent. For example, Russian natural gas exporter Gazprom's willingness to lower gas contract prices and loosen the oil-linked structure is often linked with the threat of additional LNG supplies to Europe from other countries—but this was one factor among many, including other market players' decisions to change their contract structure for selling gas into European markets, weak European demand, and European efforts to reform their internal energy policy related to gas and electricity markets through the EU's third energy reform package. I am not trying to diminish the role that the availability—or future availability—of U.S. LNG plays in helping shift market dynamics, but it is one factor among many. While the potential for U.S. LNG has helped Europe, the impact on Asian markets is less immediately clear.

Fourth, much has been said about the United States new energy posture and the shift in mindset from one of energy scarcity to energy abundance. While the new U.S. production is indeed remarkable, it does not necessarily translate into an era of global energy abundance. Perhaps, a more appropriate term for the shifting global mindset is *resource optimism* – the idea that more resources can be found when and if the right technology, price, and market conditions occur. Resource optimism has a number of important implications. From a climate change standpoint the question now becomes about how to reduce emissions in the face of a more promising future for oil and natural gas. From an oil and gas producer country standpoint the global landscape in competition for capital looks more difficult. From a technological standpoint there is renewed interest in how to cultivate new applications to extend the current production surge, make it safer and more sustainable, or build towards the next great advancement. Finally, while the outlook for oil and natural gas production is much more optimistic, it still takes a great deal of time, large-scale investments including infrastructure, coordination, and policy certainty to deliver resources to market. And as the United States learned with the propane shortages this past winter, even abundant supplies don't guarantee absence of supply disruptions and price spikes.³

One final point about energy, trade, and foreign policy. There has been a lot of recent interest about whether U.S. LNG exports can or will be a source of greater foreign policy leverage or influence. It is important to recognize that the impact of unconventional gas—and the future impact of U.S. LNG exports—is diffuse and market-driven, and not easily controlled from Washington. The decision to export gas is ultimately made and carried out by companies, though the U.S. government plays a role in permitting the export facilities, and has less to do with the foreign policy priorities of the government than commercial opportunities and relative prices. In general, the question is about whether we use our new resources—natural gas, but also oil—for purposes of leverage or stability. Leveraging energy trade for specific or near-term foreign policy aims is likely to overestimate what we are able to achieve.

Pursuing U.S. LNG exports can help foster our broader foreign policy goals, however. LNG exports are consistent with a longstanding U.S. energy and trade policies of promoting freer markets and a diversity of supply, which in turn will help make energy markets more competitive, diverse, and stable.

Thank you for your time and the opportunity to address the Subcommittee. I look forward to your questions.

³ Infrastructure build-out takes time and seasonal/operational issues will arise as delivery system continues to evolve.