



**BEFORE THE SUBCOMMITTEE ON SUBCOMMITTEE ON WESTERN
HEMISPHERE**

COMMITTEE ON FOREIGN AFFAIRS

**HEARING ON U.S. ENERGY SECURITY: ENHANCING PARTNERSHIPS WITH
MEXICO AND CANADA**

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TESTIMONY OF DANIEL R SIMMONS

THE INSTITUTE FOR ENERGY RESEARCH

The Institute for Energy Research (IER) is a non-profit organization that conducts intensive research and analysis on the functions, operations, and government regulation of global energy markets. IER articulates free market positions that respect private property rights and promote efficient outcomes for energy consumers and producers. IER staff and scholars educate policymakers and the general public on the economic and environmental benefits of free market energy. The organization was founded in 1989 as a public foundation under Section 501(c)(3) of the Internal Revenue Code. Funding for the institute comes from tax-deductible contributions of individuals, foundations, and corporations.

Introduction

The United States, Canada, and Mexico are energy rich countries, especially when the combined oil, natural gas, and coal endowments are considered together. Total recoverable oil in North America exceeds 1.7 trillion barrels. The total recoverable North American natural gas is approximately 4.2 quadrillion (4,244 trillion) cubic feet and North America has over 497 billion short tons of recoverable coal. For comparison's sake, the U.S. uses roughly 7 billion barrels of oil, 24 trillion cubic feet and 1 billion short tons of coal annually. North America is not limited by energy resources, but instead by access to these vast energy resources. Trade between the United States, Canada, and Mexico only makes our nations stronger and raises our combined economic welfare.

Canada and Mexico are not only America's closest neighbors, but also very important trading partners and America's closest energy allies. Canada is America's

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largest trading partner and Mexico is America's third largest trading partner.¹ In 2011, Canada and Mexico were the largest sources of oil exports to the United States² and Mexico is the largest recipient of U.S. gasoline exports.³ Both Canada and Mexico import natural gas from the U.S. and export natural gas to the U.S. Because of their proximity to the United States, they are the largest recipients of U.S. natural gas exports.⁴

The energy trade between the United States, Canada and Mexico is growing, especially for America's finished petroleum and natural gas exports. Mexico's heavy oil production is falling, but that means more spare refining capacity on the Gulf Coast if Canadian oil sands can be transported to the Gulf Coast.

The energy and economic welfare of the United States, Mexico, and Canada are intertwined by our shared geography, geology, and peoples. The Transboundary Hydrocarbon Agreement and the Keystone XL pipeline will work to tie our countries together and grow our economies. North America does not lack energy resources, but what we do lack, at times, is the necessary political will that could lead to greater economic growth and prosperity.

North American Energy Inventory

North America has vast energy resources and more discoveries continue to be made. The United States alone has the world's largest combined oil, natural gas, and coal resources,⁵ and both Canada and Mexico have large oil and natural gas resources. To better understand the North America's energy potential, The Institute for Energy Research compiled the North American Energy Inventory⁶ in which we catalogued the known oil, coal, and natural gas resources in Canada, the United States, and Mexico using government reports. In the report we found that:

- North America is blessed with enough energy supplies to promote and sustain economic growth for many generations. The government's own reports detail this, and Congress was advised of our energy wealth when the Congressional Research Service of the Library of Congress released a report showing that the United States' combined recoverable oil, natural gas, and coal endowment is the largest on Earth.
- The amount of oil that is technically recoverable in the United States is more than 1.4 trillion barrels, with the largest deposits located offshore, in portions of Alaska, and in shale in the Rocky Mountain West. When combined with resources from Canada and Mexico, total recoverable oil in North America exceeds 1.7 trillion barrels.
- That is more than the world has used since the first oil well was drilled over 150 years ago in Titusville, Pennsylvania. To put this in context, Saudi Arabia has about 260 billion barrels of oil in proved reserves. For comparative purposes, the technically recoverable oil in North America could fuel the

present needs in the United States of about seven billion barrels per year for around 250 years.

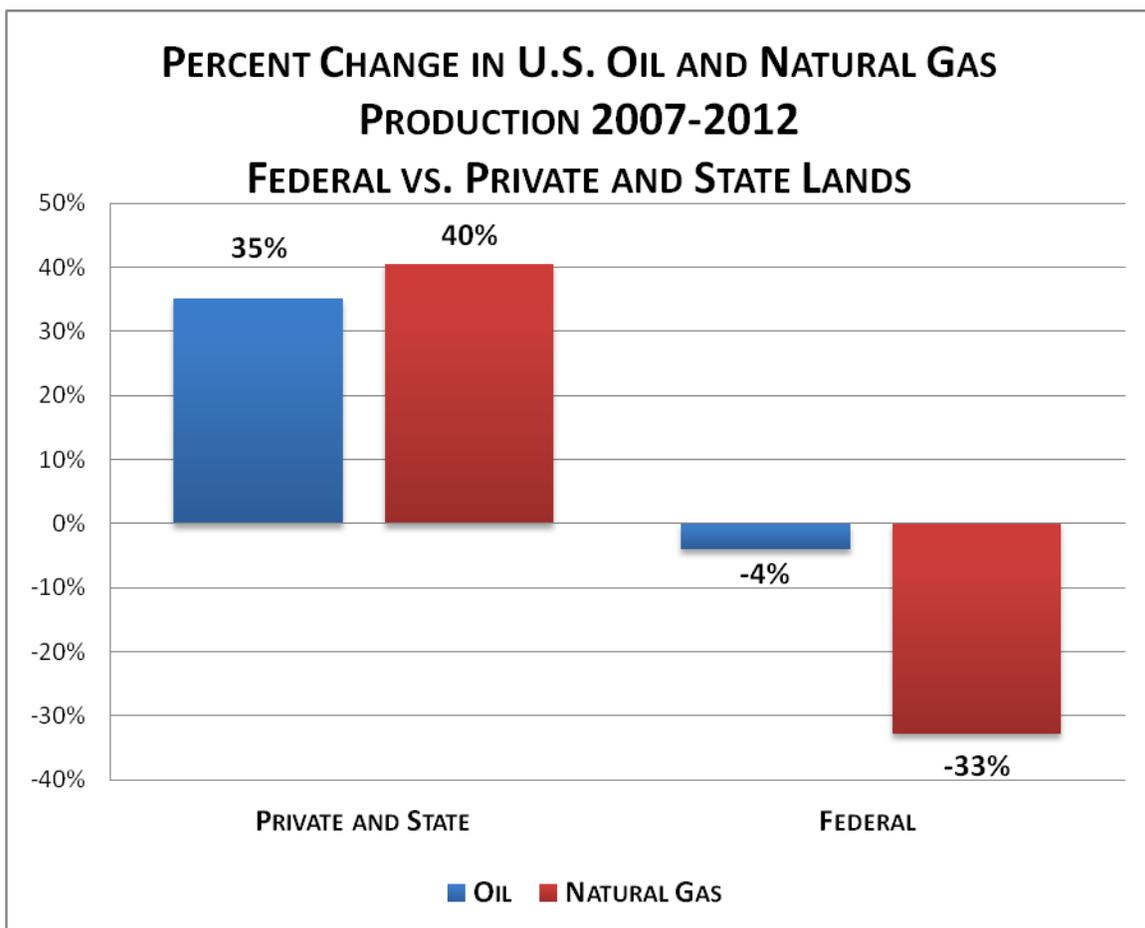
- Moreover, it is important to note that that “reserves” estimates are constantly in flux. For example, in 1980, the U.S. had oil reserves of roughly 30 billion barrels. Yet from 1980 through 2010, we produced over 77 billion barrels of oil. In other words, over the last 30 years, we produced over 150 percent of our proved reserves and still had over 20 billion barrels of oil reserves.
- Restrictions in the form of federal bans and leasing combined with declining offerings of lease acreage mean only about 2.2 percent of America’s offshore acreage is currently leased for production.
- Proved reserves of natural gas in the United States and throughout North America are enormous, and the total amount of recoverable natural gas is even more impressive. The EIA estimates that the United States has 304.6 trillion cubic feet of proved reserves of natural gas.⁷ The total amount of natural gas that is recoverable in North America is approximately 4.2 quadrillion (4,244 trillion) cubic feet.
- Given that U.S. consumption is currently [as of December 2011] about 24 trillion cubic feet per year, there is enough natural gas in North America to last the United States for over 175 years at current rates of consumption.
- Total supplies of natural gas in North America dwarf those of other countries. The United States, Canada, and Mexico have more technically recoverable natural gas resources than the combined total proved natural gas reserves found in Russia, Iran, Qatar, Saudi Arabia, and Turkmenistan.
- With respect to total recoverable resources, however, North America’s combined coal supplies are even more staggering. The United States, Canada, and Mexico have over 497 billion short tons of recoverable coal, or nearly three times as much as Russia, which has the world’s second largest reserves. North America’s recoverable coal resources are bigger than the five largest non-North American countries’ reserves combined (Russia, China, Australia, India, Ukraine).
- North American recoverable coal could provide enough electricity for the United States for about 500 years at current levels of consumption.
- While the United States and North America contain enormous energy wealth, U.S. policies have increasingly made exploration, development, production and consumption of that energy more difficult.
- Therefore, a scarcity of good policies, not a scarcity of energy, is responsible for U.S. energy insecurity.

U.S. Oil and Natural Gas Production Trends

The federal estate contains vast energy resources, but the federal government allows energy production on a very small percentage of taxpayer-owned federal lands. The Interior Department has leased just 2 percent of federal offshore areas and less than 6 percent of federal onshore lands for oil and gas development.⁸ This is particularly important because, while the entire U.S. including Alaska and Hawaii is 2.271 billion acres, the government owns mineral access to 2.4 billion acres because of the Outer Continental Shelf.

Despite a large endowment of oil and natural gas resources on federal lands, which include offshore resources, oil and natural gas production is declining on federal lands in the United States. According to a recent report from the Congressional Research Service, from 2007 through 2012, oil production fell 4 percent and natural gas production fell 33 percent on federal lands.⁹

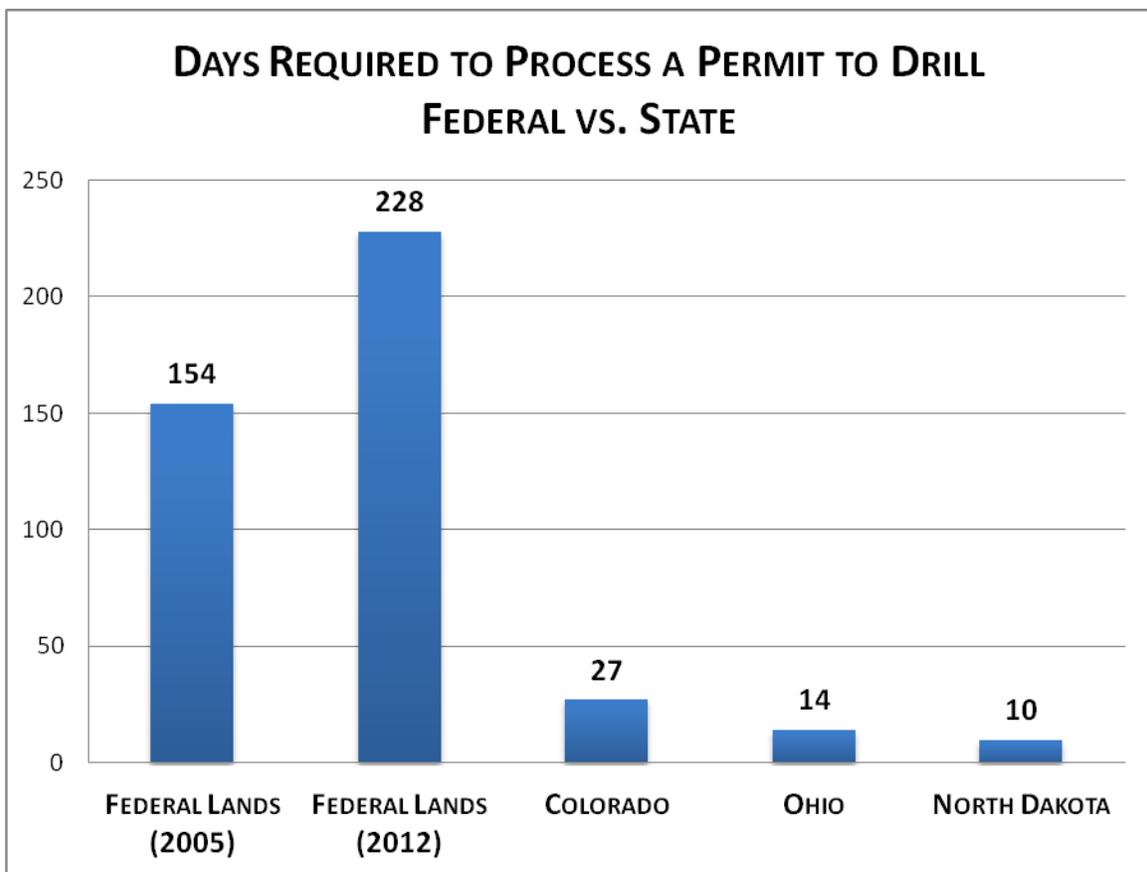
The falling production on federal lands is in stark contrast to the dramatically increasing production on private and state lands. Over the same time period, oil production grew by 35 percent and natural gas production grew by 40 percent.



The historic increase in oil and gas production from non-federal lands is the reason President Obama could say in his State of the Union address, “We produce more oil at home than we have in 15 years.” We produce more natural gas than ever before—and nearly everyone’s energy bill is lower because of it.”

The President is right, but the federal government has had nothing to do with that success. The reason that oil and natural gas is increasing on private and state lands while falling on federal lands is because of a major difference in policies. The states understand that it is possible to protect the environment and produce oil and natural gas, while red tape on federal lands continues to increase.

Consider one example of the time required to get a permit to drill on federal land versus some energy producing states. It takes an average of 228 days for the Bureau of Land Management to process a permit to drill, up from 154 days in 2005,¹⁰ but only 27 days for Colorado,¹¹ 14 days for Ohio,¹² and 10 days in North Dakota. It should come as no surprise why oil and natural gas production is rapidly increasing even while energy production on federal lands is declining. The federal government has vast energy resources, but the federal government’s current energy plans result in limiting energy production on federal lands.



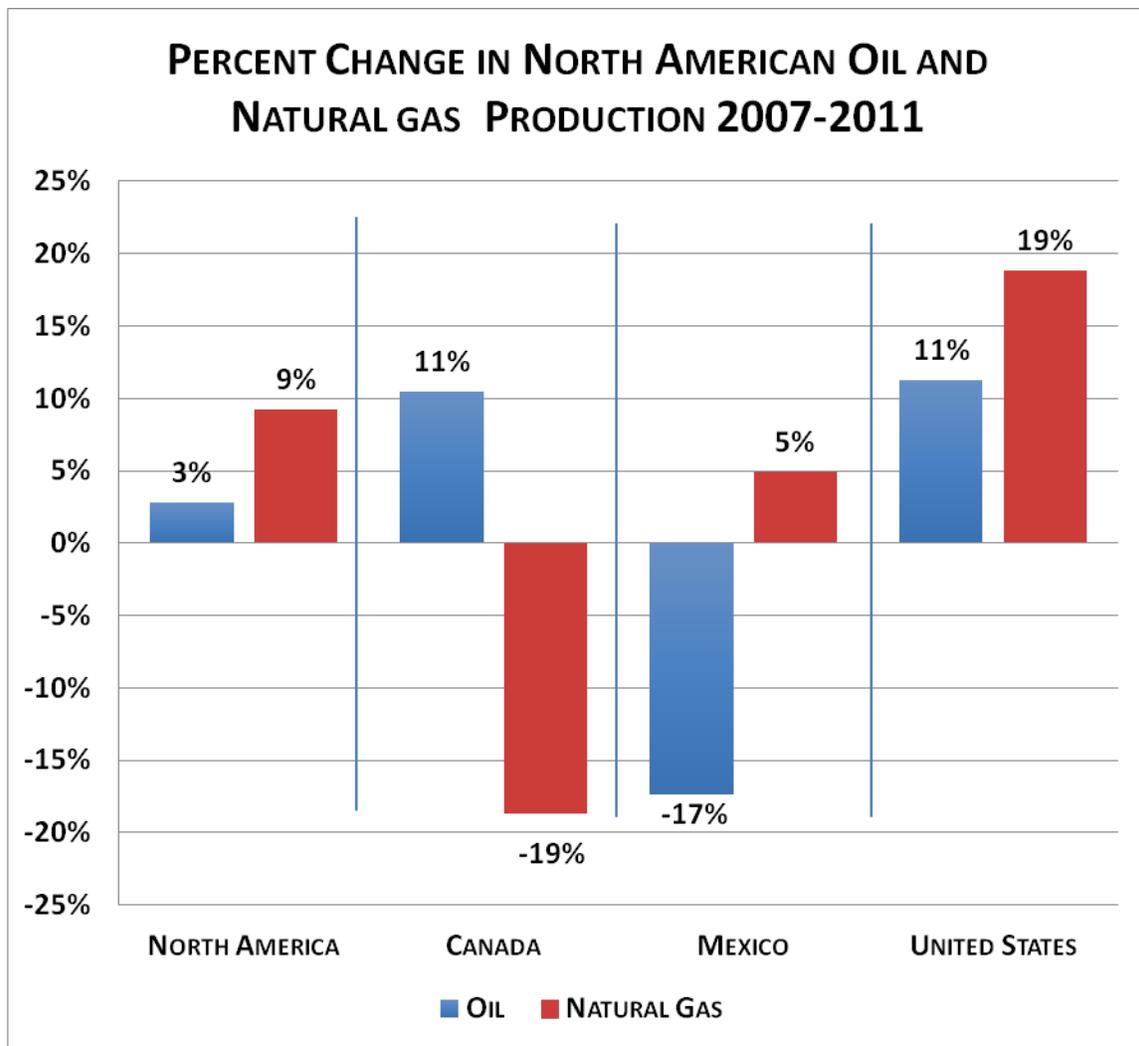
The federal government's land use policies have reduced oil and natural gas production on federal lands because federal regulations make it much more difficult to work on federal lands. Instead of following the example of the states, the federal government continues to slow down energy production.

Some argue that the reason oil and natural production is increasing on federal lands is because shale resources are located on private lands.¹³ There are a few problems with this argument. First, it overlooks that the fact that it is more expensive to produce oil and natural gas from unconventional resources like shale. Because it is less expensive to produce oil and natural gas from conventional resources, undoubtedly conventional oil production would be occurring in the Pacific, the Atlantic, parts of the Gulf of Mexico, offshore Alaska, in ANWR, in the National Petroleum Reserve-Alaska if the federal government had allowed access to these conventional resources.

Second, oil and natural gas producers go to where there is access to the resources. With the federal government restricting access, oil production is increasingly occurring on private and state lands where access is permitted and delays allow investment dollars to be spent. This is why the shale revolution is occurring in the North Dakota, Texas, Arkansas, Louisiana, and Pennsylvania—and not on federal lands or in states like California. The Monterrey shale in California is larger than the Bakken and the Eagle Ford combined, but production is occurring elsewhere.

Third, with 982 billion barrels of recoverable oil shale, if R&D is successful, what matters is a path to commercial production because there is no guarantee the federal government will permit commercial leasing if R&D does indeed go well. Companies will not be willing to invest the hundreds of millions and billions of dollars necessary to make production economical if they are not able to reap the rewards from production. The government's approach is akin to inviting pharmaceutical companies to invent new drugs without a patenting system. Few believe companies would invest if there was no potential for a reward after all one's risk.

This example of potential resources in the United States shows that the regulatory environment is critical to exploration, and oil production increases can occur if people have access to resources. We know it can happen because it is happening.



Mexican Oil and Natural Gas Production Trends

In Mexico, oil and natural gas production is controlled by *Petróleos Mexicanos* or Pemex—the state-owned oil company. According to the Energy Information Administration, over the past 5 years, oil production in Mexico has fallen by 17 percent,¹⁴ while natural gas production has increased by 5 percent.¹⁵

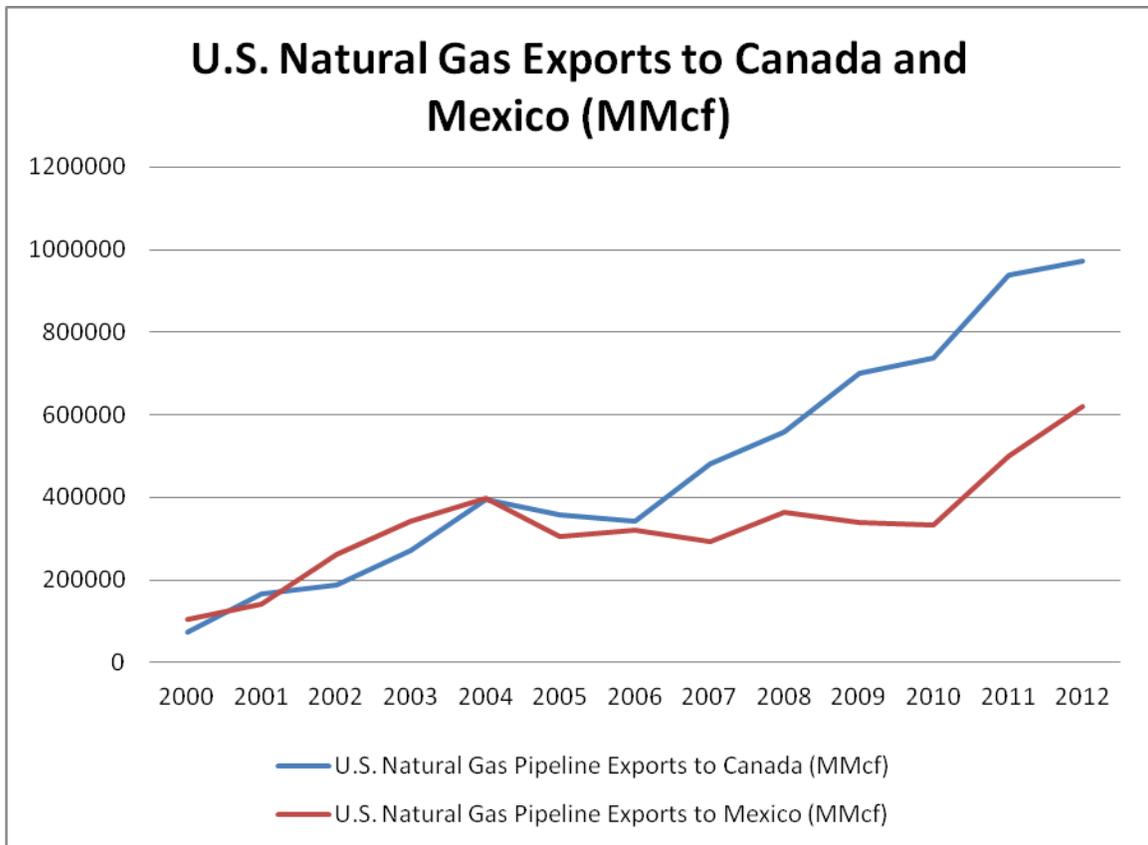
According to Mexican Finance Minister Luis Videgaray, there is no plan to privatize Pemex, but the company’s performance shows that it “cannot do everything itself.”¹⁶ Videgaray continued, explaining “private participation—particularly in those fields where there is opportunity because of nature and geology but where Pemex clearly doesn’t have either the capital or the expertise.”¹⁷

One example of where there is great potential, but where Pemex does not have expertise is in shale plays. The Eagle Ford shale extends into Mexico, but all of the production is on the U.S. side of the border.



In a way, Mexico has privatized their refining sector. Mexico exports crude oil to the United States and imports gasoline and refined products from Gulf coast refineries. Mexican oil imports to the United States peaked in 2006 and have since decreased by 30 percent.¹⁸ Despite the decrease in Mexican oil imports to the U.S., American gasoline exports have dramatically increased in recent years. From 2007 through 2011, U.S. gasoline exports to Mexico have more than tripled.¹⁹

Despite the rise in Mexico's natural gas production, Mexico is a net natural gas importer.²⁰ U.S. natural gas exports by pipeline have increased by 86 percent from 2010–2012.²¹



Further Enhancing U.S. Canadian Energy Partnerships: Transboundary Hydrocarbons Agreement

The Gulf of Mexico is one of the most prolific hydrocarbon-producing areas for both the United States and Mexico. Oil production, especially in deepwater on the U.S. side of the border, has moved closer to the U.S.-Mexico maritime border in recent years. Until last year, there was no agreement on how to divide resources between the United States and Mexico for resources that straddle the border.

The Transboundary Hydrocarbon Agreement comes after decades of indecision between Mexico and the United States. This decision allows oil and natural gas production on 1.5 million acres in the Gulf of Mexico that was previously off-limits because of border issues.

The Transboundary Agreement itself will not lead to a revolution in hydrocarbon production for the United States and Mexico. This is not to say that the hydrocarbon resources are not important—they are. But more important than the oil and natural gas resources along the border is greater cooperation between the United States and Mexico.

Mexico has long been a leading oil producer, but as explained above, oil production in Mexico is falling. This is not from a lack of resources. Mexico has an estimated

10.5 billion barrels of proven oil reserves, but that amount could double when unconventional and deepwater resources become proven reserves.²² The Transboundary Hydrocarbon Agreement is important for the production of some of these deepwater resources.

As Sen. Lugar wrote last year:

I strongly encourage the Obama administration to send the U.S.-Mexico Transboundary Agreement, signed in February of this year, to Congress and urge my colleagues to pass the agreement. The Transboundary Agreement is good for energy security, good for the environment, good for U.S. commercial interests, and, most critically, can open the door to bilateral engagement on shared energy interests.²³

After the Obama administration did the important work of negotiating the Transboundary Hydrocarbon Agreement, they have failed to either send the agreement to the Senate as a treaty or decide that the agreement is an Executive Agreement. The Administration should decide quickly whether the Transboundary Hydrocarbon Agreement should be considered a treaty or an Executive Agreement. So far, the administration's actions on the agreement are similar to its actions (or really, lack of action) on the Keystone XL pipeline. The United States needs secure energy supplies from its neighbors and allies; it should not take years for the administration to decide whether an agreement is a treaty or an executive agreement or whether one additional pipeline is in the "national interest" of the United States.

Canadian Oil and Natural Gas Production Trends

In Canada, unlike the United States, the federal government owns very little land. For example, in Alberta, 81 percent of the land is owned by Albertans through the provincial government and only 11 percent of Alberta is owned by the federal because (it is held in trust on behalf of First Nations).²⁴ Because the federal government exercises less control than in the United States, energy production is far easier in pro-energy provinces such as Alberta.

From 2007 through 2011, Canada's oil production increased by 11 percent, but its natural gas production decreased by 19 percent. Oil production from the oil sands will continue to increase. Also, like the United States, Canada has many shale plays. For example, the Bakken extends into Canada. In the future, Canada's shale oil production will likely increase.

Canada is the largest recipient of U.S. natural gas exports. Over the past 5 years, U.S. natural gas exports to Canada have more than doubled.

Further Enhancing U.S. Canadian Energy Partnerships: Keystone XL Pipeline

Just 5 years ago, the United States was importing almost 60 percent of its oil needs, while today, we import only 40 percent²⁵ with less than a fifth of our imports²⁶ coming from outside the western hemisphere.²⁷ We import almost 3 million barrels per day from Canada,²⁸ the most oil imported from a single country. Canada's oil reserves are estimated at 175 billion barrels²⁹—the third largest in the world.

The Keystone pipeline will enable more oil imports to come from Canada and reach refineries on the Gulf coast of Texas, which is critical for North America to reach energy independence. Gulf Coast refiners will then be able to substitute crude from our reliable northern neighbor for unreliable Venezuelan crude, both of which are heavy crudes.

For four years, the Obama administration has been trying to decide if the Keystone XL pipeline is in the “national interest.” If approved, it will run from the Alberta oil sands fields to Gulf Coast oil refineries. The southern portion of the pipeline is already under construction between Oklahoma and the Texas Gulf, employing 4,000 workers.³⁰ It will carry 700,000 barrels of oil per day when completed later this year.³¹ The 1,700-mile route of the northern portion was initially turned down by the administration because it would cross environmentally sensitive areas in Nebraska.³² The revised route has been approved by the governor of Nebraska, Dave Heineman³³, and is awaiting the administration's approval, which is expected to be decided around the beginning of April. The pipeline has been under consideration for years and would already be operating if it were not for the delays from the State Department.

Parts of the government (the Environmental Protection Agency and the Pipeline and Hazardous Materials Safety Administration) reviewed the plan and voiced no public opposition.³⁴ The State Department just issued a 2,000-page revised environmental impact statement that provides no environmental reason against the pipeline. While the impact statement states that extracting, shipping, refining and burning oil from oil sands produces more greenhouse gases than most conventional oil (5 to 19 percent more), the study agrees that Canada will continue to develop its oil sands even if the Keystone XL pipeline is not built.³⁵

Job estimates related to the pipeline have varied from 6,000 and higher.³⁶ TransCanada, the company building the proposed pipeline, estimates the Keystone XL project will support 9,000 U.S. jobs through early 2015.³⁷ Regardless of the exact number, the pipeline will bring billions of dollars in economic activity and tax revenues to the U.S. economy.³⁸

Canada has invested more than \$100 billion in oil sands development³⁹ over the last 10 years, which has generated 75,000 jobs that is expected to multiply over the next 25 years as production increases. The Canadian Association of Petroleum Producers estimates that the country's oil production will almost double by 2030, from 3.2

million barrels of oil a day today to 6.2 million barrels a day by 2030, with oil sands representing most of the increase.⁴⁰

Currently, nearly all of the country's oil is exported to the United States. It is expected that more Canadian oil will reach U.S. markets even if the Keystone project is not approved through a combination of rail, barge, truck and pipelines. For example, tank car orders to move crude petroleum by rail is rising with as many as 30,000 new cars to be available by the end of 2014—enough capacity to move 2 million barrels of oil per day.⁴¹ About 40 percent of those orders were made by Canadian entities that are anxious to move their oil.⁴² The shortage of pipeline capacity has produced localized supply gluts, forcing the price of Canadian crude to fall well below American and international benchmarks.

The Canadians are growing exasperated with our delays and will eventually turn to other economies to sell the oil to if the United States does not allow sufficient infrastructure to bring it to U.S. markets. Thus, while environmentalists worry about the slightly additional carbon dioxide emissions that it takes to produce oil sands over conventional crude oil (5 to 15 percent from well to wheel), that oil will be produced and consumed somewhere, most likely China. And, if Canada sends its oil by pipeline, train, and tanker to Asia, more carbon dioxide emissions will be generated by transporting it there than transporting it to the United States.

In view of political unrest and uncertainty in the Middle East and terrorist attacks against oil and gas facilities in northwest Africa, the prospect of North American energy independence should be embraced by all. By approving the Keystone XL pipeline along with other policies to encourage oil and gas development in the United States, the administration could accelerate the timeline for North American energy independence while simultaneously stimulating the economy. Further, it would be beneficial to have our oil supplies come increasingly from responsibly managed sources rather than countries where oil wealth benefits few and the costs of extraction are borne by many.

Conclusion

North America is an energy rich continent. Our energy issues are not issues of a lack of supply, but a lack of access to energy resources. The example of the Transboundary Hydrocarbon Agreement and the Keystone XL pipeline shows that politics can get in the way of increasing our important energy ties between the United States, Mexico, and Canada for the good of all three countries. After more than a year, hopefully the administration will soon decide what to do on the Transboundary Hydrocarbon Agreement. The same is true on the Keystone XL pipeline. The administration has taken more than four years to try to decide whether the pipeline is in the “national interest”.

Affordable, reliable energy is critical for the welfare of all Americans, Mexicans, and Canadians. Hopefully our countries will work better together in the future to enhance our energy security and our economic welfare as well.

¹ U.S. Census, *Top Trading Partners—Total Trade, Exports, Imports*, <http://www.census.gov/foreign-trade/statistics/highlights/toppartners.html>.

² Energy Information Administration, *U.S. Total Crude Oil and Products Imports*, http://www.eia.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbbldpd_a.htm.

³ Energy Information Administration, *Finished Motor Gasoline Exports by Destination*, http://www.eia.gov/dnav/pet/pet_move_expc_a_epm0f_eex_mbbldpd_a.htm.

⁴ Energy Information Administration, *U.S. Natural Gas Exports by Country*, http://www.eia.gov/dnav/ng/ng_move_expc_s1_a.htm; Energy Information Administration, *U.S. Natural Gas Imports by Country*, http://www.eia.gov/dnav/ng/ng_move_impcc_s1_a.htm.

⁵ Gene Whitney et. al., *U.S. Fossil Fuel Resources: Terminology, Reporting, and Summary*, Congressional Research Service, Nov. 30, 2010, http://epw.senate.gov/public/index.cfm?FuseAction=Files.view&FileStore_id=04212e22-c1b3-41f2-b0ba-0da5eae952.

⁶ Institute for Energy Research, *North American Energy Inventory*, Dec. 2011, <http://www.energyforamerica.org/wp-content/uploads/2012/06/Energy-InventoryFINAL.pdf>.

⁷ Energy Information Administration, *Natural Gas Reserves Summary as of Dec. 31*, http://www.eia.gov/dnav/ng/ng_enr_sum_a_EPG0_R11_BCF_a.htm.

⁸ See Bureau of Ocean Energy Management, Regulation and Enforcement, *Offshore Energy and Minerals Management*, <http://www.boemre.gov/offshore/>. According to the administration's website, the outer continental shelf is 1.76 billion acres (<http://www.boemre.gov/ld/PDFs/GreenBook-LeasingDocument.pdf> page 1) and only 38 million acres are leased (*Department of Interior, Oil and Gas Lease Utilization – Onshore and Offshore*, <http://www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&pageid=239255> page 4). That is a mere 2.16% of the entire Outer Continental Shelf. According to the Department of Interior, 38 million acres of onshore lands are leased for oil and natural gas production. See Table 3 in Department of Interior, *Oil and Gas Lease Utilization—Onshore and Offshore*, <http://www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&pageid=239255>. According to the Congressional Research Service, the federal government owns just over 650 million acres of land. See Appendix A. Congressional Research Service, *Major Federal Land Management Agencies: Management of Our Nation's Lands and Resources*, May 15, 1995, <http://www.ncseonline.org/nle/crsreports/natural/nrgen-3.cfm>. The federal government also controls an additional 58 million acres of federal mineral estate below privately owned surface estate. See Bureau of Land Management, *Split Estate*, http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS_REALTY_AND_RESOURCE_PROTECTION_/bmps.Par.98100.File.dat/SplitEstate08finalWeb.pdf.

⁹ Marc Humphries, U.S. Crude Oil and Natural Gas Production in Federal and Non-Federal Areas, Feb. 28, 2013, <http://www.instituteforenergyresearch.org/wp-content/uploads/2013/03/CRS-report-on-oil-and-nat-gas-on-federal-lands.pdf>.

¹⁰ Bureau of Land Management, *Average Application for Permit to Drill (APD) Approval Timeframes: FY2005–FY2012*, http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/statistics/apd_chart.html

¹¹ Dave Neslin to Colorado Oil and Gas Conservation Commission, Apr. 25, 2011, http://cogcc.state.co.us/announcements/CommissionLtr4_25_11.pdf.

¹² Ohio Division of Oil and Gas Resources Management, *2011 Ohio Oil and Gas Summary*, <http://ohiodnr.com/portals/11/publications/pdf/oilgas11.pdf>.

¹³ See e.g. The Checks and Balances Project, *Senators get it wrong on oil & gas production at Jewell nomination hearing; Industry is following the oil to nonfederal lands*, Mar. 8, 2013, <http://checksandbalancesproject.org/2013/03/08/senators-get-it-wrong-on-oil-gas-production-at-jewell-nomination-hearing-industry-is-following-the-oil-to-nonfederal-lands/>

¹⁴ Energy Information Administration, *International Energy Statistics: Petroleum*, <http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=5&pid=57&aid=1&cid=regions&syid=1980&eyid=2011&unit=TBPB>.

¹⁵ Energy Information Administration, *International Energy Statistics: Natural Gas*, <http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=3&pid=26&aid=1&cid=regions&syid=1980&eyid=2011&unit=BCF>.

¹⁶ Mary Antastasia O'Grady, *O'Grady: Will Mexico Welcome Wildcatters?*, Wall Street Journal, Feb. 24, 2013, http://professional.wsj.com/article/SB10001424127887324503204578320191174967104.html?mod=WSJ_Opinion_BelowLEFTSecond&mg=reno64-wsj%5C.

¹⁷ *Id.*

¹⁸ Energy Information Administration, *U.S. Imports by Country of Origin*, http://www.eia.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbbldpd_a.htm.

¹⁹ Energy Information Administration, *Finished Motor Gasoline Exports by Destination*, http://www.eia.gov/dnav/pet/pet_move_expc_a_epm0f_eex_mbbldpd_a.htm.

²⁰ See Mary Antastasia O'Grady, *O'Grady: Will Mexico Welcome Wildcatters?*, Wall Street Journal, Feb. 24, 2013, http://professional.wsj.com/article/SB10001424127887324503204578320191174967104.html?mod=WSJ_Opinion_BelowLEFTSecond&mg=reno64-wsj%5C.

²¹ Energy Information Administration, *U.S. Natural Gas Exports by Country*, http://www.eia.gov/dnav/ng/ng_move_expc_s1_a.htm.

²² Minority Staff Report, United States Senate Committee on Foreign Relations, *Oil, Mexico, and the Transboundary Agreement*, Dec. 21, 2012,

<http://www.foreign.senate.gov/publications/download/oil-mexico-and-the-transboundary-agreement>.

²³ Minority Staff Report, United States Senate Committee on Foreign Relations, *Oil, Mexico, and the Transboundary Agreement*, Dec. 21, 2012,

<http://www.foreign.senate.gov/publications/download/oil-mexico-and-the-transboundary-agreement>.

²⁴ Royalty Review Panel, *Royalties in Alberta*, p. 2,

http://www.albertaroyaltyreview.ca/more_info/background.pdf.

²⁵ Energy Information Administration, *Monthly Energy Review: Table 3.1*, Feb. 2013,

http://www.eia.gov/totalenergy/data/monthly/pdf/sec3_3.pdf.

²⁶ Bernard L. Weinstein, *Keystone key to energy independence*, The Hill, Feb. 14, 2013,

<http://thehill.com/blogs/congress-blog/energy-a-environment/283179-keystone-key-to-energy-independence>.

²⁷ The Hill, *Keystone key to energy independence*, Feb. 14, 2013, <http://thehill.com/blogs/congress-blog/energy-a-environment/283179-keystone-key-to-energy-independence>

²⁸ Energy Information Administration, *Monthly Energy Review: Table 3.3d*, Feb. 2013,

http://www.eia.gov/totalenergy/data/monthly/pdf/sec3_11.pdf.

²⁹ Energy Information Administration, *International Energy Outlook 2011: Table 5*,

<http://www.eia.gov/forecasts/ieo/table5.cfm>.

³⁰ Devin Dwyer, *Keystone Pipeline Tests President Obama on Jobs, Climate*, ABCNews, Jan. 23, 2012,

<http://abcnews.go.com/Politics/OTUS/keystone-pipeline-decision-tests-president-obama-jobs-climate/story?id=18292687>.

³¹ *Id.*

³² John M. Broder, *Governor of Nebraska Backs Route for Pipeline*, N.Y. Times, Jan. 22, 2013,

http://www.nytimes.com/2013/01/23/science/earth/keystone-pipeline-route-approved-by-nebraska-governor.html?nl=todaysheadlines&emc=edit_th_20130123&r=4&.

³³ *Id.*

³⁴ ABC News, *Keystone Pipeline Tests President Obama on Jobs, Climate*, January 23, 2013,

<http://abcnews.go.com/Politics/OTUS/keystone-pipeline-decision-tests-president-obama-jobs-climate/story?id=18292687>

³⁵ New York Times, *Report May Ease Path for New Pipeline*, March 1, 2013,

http://www.nytimes.com/2013/03/02/us/us-report-sees-no-environmental-bar-to-keystone-pipeline.html?nl=todaysheadlines&emc=edit_th_20130302&r=0

³⁶ Reason, *Three reasons to build the Keystone XL pipeline*, February 17, 2013,

<http://reason.com/blog/2013/02/17/3-reasons-to-build-the-keystone-xl-pipel>

³⁷ Devin Dwyer, *Keystone Pipeline Tests President Obama on Jobs, Climate*, ABCNews, Jan. 23, 2012,

<http://abcnews.go.com/Politics/OTUS/keystone-pipeline-decision-tests-president-obama-jobs-climate/story?id=18292687>.

³⁸ Reason, *Three reasons to build the Keystone XL pipeline*, February 17, 2013, <http://reason.com/blog/2013/02/17/3-reasons-to-build-the-keystone-xl-pipel>

³⁹ John M. Broder, *Governor of Nebraska Backs Route for Pipeline*, N.Y. Times, Jan. 22, 2013, http://www.nytimes.com/2013/01/23/science/earth/keystone-pipeline-route-approved-by-nebraska-governor.html?nl=todaysheadlines&emc=edit_th_20130123&r=4&.

⁴⁰ *Id.*

⁴¹ Yadullah Hussain, *Demand for tank cars to ship crude oil by rail rises at breakneck speed*, Financial Post, Feb. 22, 2013, http://business.financialpost.com/2013/02/22/demand-for-tank-cars-to-ship-crude-oil-by-rail-rises-at-breakneck-speed/?_lsa=d408-45da.

⁴² *Id.*