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PURSUING NORTH AMERICAN ENERGY INDEPENDENCE: MEXICO'S ENERGY REFORMS

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THE WESTERN HEMISPHERE

OF THE

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PURSUING NORTH AMERICAN ENERGY INDEPENDENCE: MEXICO'S ENERGY REFORMS

THURSDAY, JULY 23, 2015

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON THE WESTERN HEMISPHERE,
COMMITTEE ON FOREIGN AFFAIRS,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:26 p.m., in room 2200, Rayburn House Office Building, Hon. Jeff Duncan (chairman of the subcommittee) presiding.

Mr. DUNCAN. A quorum being present, the subcommittee will come to order. I would now like to recognize myself for an opening statement.

I have often talked about, short of American energy independence, why not talk about North American energy independence, and I think this is a great hearing to delve into that. Today we meet to examine Mexico's energy reforms, their impact on Mexico's economy and the global energy market, ways these reforms might contribute to the North American energy independence.

This is the second hearing on energy issues that this subcommittee has held this Congress, and I plan to continue the focus on energy as we move forward, because I believe the energy opportunities that we have seen occurring in the Western Hemisphere have the potential to truly transform our region, lessen our dependence on the Middle East for energy sources, and deepen our partnerships with like-minded countries to pursue greater security and prosperity.

In particular, North America has experienced an incredible awakening in the energy sector with the United States' oil and shale gas revolution, Canada's oil sands, and Mexico's energy reforms. Unfortunately, the State Department's long delayed approval of the Keystone XL pipeline, which has languished for nearly 2,500 days, has forced Canada to look toward Asia to meet its energy export demands and deny the United States and Canada a strong energy partnership.

Similarly, Mexico's request in January to swap 100,000 barrels a day of U.S. light crude oil and condensate in exchange for the heavier sour Mexican oil has also languished, receiving no decision yet from the Obama administration.

While our closest neighbors have been kept in the dark on issues that directly impact their needs and our own interest to create more U.S. jobs, the Obama administration has foolishly prioritized the Iran deal in yet another appeasement to what Director of Na-

tional Intelligence James Clapper called "an ongoing threat to U.S. national interests."

Today, the three North American countries collectively produce 67 percent of the Western Hemisphere's crude oil production and 84 percent of the natural gas production. And after the United States and Canada, Mexico is the 3rd-largest oil producer in the Western Hemisphere and the 10th-largest producer in the world.

Mexico also ranks fourth in the world in shale gas reserves. Several recent discoveries of oil and gas in Mexico's northeast, in the deep waters of the Gulf of Mexico, and shale gas deposits along the U.S.-Mexico border, along with the development of unconventional resources in northern Mexico and in the Chicontepec basin—if I pronounced that is right—show great promise for Mexico.

However, Mexico's oil and gas production have fallen over the years, with oil declining by over 1 million barrels a day from 2004 to 2014 and natural gas production failing to keep up with the demand, requiring Mexico to import liquefied natural gas from the Middle East and pay nearly four times the rate in North America to meet its demand.

In addition, Mexico's state-owned oil company, Pemex, has had near complete control over the energy sector in Mexico, preventing substantial foreign direct investment and crippling Mexico's competitiveness, since Pemex's creation in 1938. According to the Wilson Center, prior to Mexico's energy reforms, even Cuba and North Korea had more open energy systems than Mexico, because Mexico has been the only country in the world with one single national oil company monopolizing the entire value chain in the oil and gas sectors.

Changes clearly have been needed for some time in Mexico to address these issues, so I want to publicly commend Mexico's leadership in taking tough measures to pass energy reforms into law in 2013 and secondary laws implementing these reforms in 2014. This is arguably the most significant economic reform undertaken by Mexico since its entry into the North American Free Trade Agreement in 1994, and the U.S. Energy Information Administration has estimated that these energy reforms could result in a 75 percent higher long-term oil production rate for Mexico than it would have had before the reforms.

This is a wonderful forecast for Mexico, and I want to see Mexico succeed above all expectations in these energy reforms. If done right, these reforms will allow Mexico's energy sector to thrive and prosper and also enhance U.S. energy security by creating a more reliable source of energy from our closest southern neighbor. Nevertheless, there are certain issues that I believe are necessary to Mexico achieving sustainable results in these efforts.

First, it is vital that Mexico not ignore the security situation since many organized criminal groups operate in the very areas where Mexico's greatest land, oil, and gas exploration opportunities are located. These criminal groups no longer deal only in drugs. They now also make billions of dollars in illegal mining, logging, extortion, and bunkering, including illegal sale of gas condensate and oil products. Pemex has even had lawsuits in U.S. Federal courts against companies that allegedly illegally purchased stolen gas from the Mexico Los Zetas drug trafficking organization.

In addition, I believe it is very important that Mexico ensure that it has broad public support for its energy reforms. Addressing security, corruption, and impunity concerns, especially in the wake of the recent escape of Joaquin "El Chapo" Guzman from a high security prison in Mexico, are vital to shoring up public support and tracking international investment.

Private property and land rights issues are also very important and will need resolution in a way that protects individual liberties in order to prevent future social conflicts and continue to build public support for the energy reforms and enable continued progress in those reforms.

Early results of Mexico's initial rounds of the historic bidding and awards last week have proven to be a mixed bag at best. The participation of 9 companies in the process and the eventual awards of only 2 of the 14 blocks showed some promise in this new chapter for Mexico. However, the experience is also a reminder of the need to balance Mexico's great energy potential with a clear, flexible, and transparent bid and award process.

As author of the legislation in the 113th Congress to approve the U.S.-Mexico Transboundary Hydrocarbon Agreement, which became Public Law 113–67, I am personally very excited about Mexico's energy future and the potential this has for growing the North American energy market. It is my hope that by holding this hearing today we may be able to bring more public awareness to the exciting changes in Mexico and positive impact these changes will have for the United States' relationship with Mexico and North America in general.

So in conclusion, Mexico's actions in opening its oil and natural gas and power sectors to private investment and participation now allow a true energy partnership for the first time of North American countries, with U.S. and Canada sharing technical expertise to assist Mexico in building technical and workforce capacity and Mexico playing a new and important key role in efforts to achieve North American energy independence and prosperity.

So with that, I will look forward to hearing from our panel. I appreciate the witnesses being here today.

And I now welcome to the committee, and I turn to Ranking Member Sires for his opening statement.

Mr. SIRES. Thank you, Mr. Chairman.

Good afternoon. Thank you to our witnesses for being here today.

The U.S. and Mexico relationship is amongst the most critical for our Nation's economic and public security. It is also one of the most promising and positive relationships in our hemisphere. I thank my friend and colleague Chairman Duncan for making this relationship a central focus of our subcommittee's work.

The United States and Mexico share common democratic values, similar desires for peace and economic prosperity, as well as nearly a 2,000-mile border. With countries like China working to increase influence in the Western Hemisphere, the U.S. cannot fall behind, as the Western Hemisphere plays a critical role in our energy security. Unfortunately, China has pledged $250 billion in investments in Latin America over the next 10 years, seeking to boost their influence in the resource-rich region.

It is clear that maintaining and strengthening our energy relationship with Canada and Mexico is in the national interest of the United States. Mexico's new administration has committed itself to reverse its declining oil production and has opened the possibility to pursue joint private ventures with foreign firms in the exploration of its resources.

The historic December 2013 constitutional reform, combined with the new laws implemented in August 2014, allows Mexico's state oil company, Pemex, to partner with international companies to boost oil and natural gas production. Held by many as the most significant economic reform undertaken by Mexico since its entrance into NAFTA in 1994, the energy reforms are expected to produce investment, spur growth, and eventually lead to greater oil and gas production in the country.

With the bidding process off to a slow start, we must remain vigilant that Mexico carries out these reforms in the most efficient and productive ways possible, but optimistic about the potential for opening up access to Pemex. Additionally, I believe that the proposed Keystone pipeline and the Transboundary Hydrocarbon Agreement with Mexico are in the national interests of the United States.

I am sensitive to the environmental concerns associated with the development of the Keystone project, but the conversation has stagnated. I am encouraged to see the administration is working with our partners in Mexico and in Canada to further our regional energy independence. The North American Energy Ministers meeting in May resulting in a new energy partnership with both Mexico and Canada aim at integrating our energy strategies and efforts to tackle the negative impacts of climate change.

These trilateral efforts to improve energy efficiency and develop clean energy technologies bring greater cooperation with our neighbors and help ensure that our energy policies are sustainable and not just short term. We must remember that no one single project initiative is a cure-all for our energy security needs, and no proposal will satisfy everyone's need to alleviate every doubt. But we must continue to work with our neighbors to develop a beneficial energy policy for the region.

I look forward to hearing from our panelists on how we can address these critical issues. Thank you.

Mr. DUNCAN. I want to thank the ranking member.

Members of the committee are reminded that the biographies of all the witnesses are provided beforehand. But I do want to recognize the gentleman from Texas, Mr. Hurd, for an introduction of one of his constituents.

Mr. HURD. I thank Chairman Duncan and appreciate him allowing me to speak today.

Today's hearing is on a critical topic that I believe is often overlooked. Mexican energy reforms would not only greatly benefit their national economy, but would greatly benefit ours as well. My district, Texas 23, shares over 800 miles of border with Mexico and is home to the Eagle Ford and Permian Basin. I have always maintained that our energy policies are not just important to the economy, but they are also an issue of national security as well.

Today, I am pleased to welcome a witness who has a profound understanding of this issue, Dr. Thomas Tunstall, the director of the Center for Community and Business Research at the University of Texas at San Antonio.

Welcome, sir.

And I yield back.

Mr. DUNCAN. Okay. So Mr. Castro is recognized for a brief opening statement.

Mr. CASTRO. Sure. Just to echo the welcome that my colleagues have extended, and also the two Texans that are here, Dr. Tunstall, welcome, from San Antonio, UT San Antonio; and Dr. Payan from Rice, welcome. Thank you. And welcome to the other panelists as well.

Mr. DUNCAN. Okay. Before I recognize you, there is a lighting system in front of you. I don't need to explain it, I hope, but it will be green while you have a chance to talk; when you get to 1 minute remaining, it will go to yellow; and when it is red, we will need to wrap up your thought process. So I will go ahead and get started.

And the first witness I would like to recognize is Ambassador Carlos Pascual.

You are recognized for 5 minutes.

STATEMENT OF THE HONORABLE CARLOS PASCUAL, SENIOR VICE PRESIDENT, IHS INC. (FORMER U.S. AMBASSADOR TO MEXICO)

Mr. PASCUAL. Chairman Duncan, Ranking Member Sires, and members of the committee, I appreciate this opportunity to testify on Mexico's energy reforms.

I appear in my capacity as senior vice president for IHS, a global consultancy that specializes in energy. I previously served as the Coordinator for International Energy Affairs at the State Department. I was the American Ambassador in Mexico from 2009 to 2011 and had the opportunity to work with you on the transboundary treaty, an agreement which this committee was so critical in moving forward.

Since 2012, Mexico has embarked on a historic opening of its energy sector to allow private investment and competition in oil, gas, and electricity. On July 15, Mexico completed the first tender since 1938 for the sale of hydrocarbon assets. Even though the results did not meet expectations, it formalized a process of opening the energy sector to private investment, and with that, the benefits that will eventually ensue from infusions of capital and technology.

In the energy field, no other region today has what North America can offer: Energy abundance and technology leadership across three democratic states and market economies with huge consumer markets, financing potential, and a global reach and influence. The successful implementation of Mexico's reforms is critical to realize these opportunities.

As you have indicated, Mr. Chairman, the nationalization of Mexico's hydrocarbon sector in 1938 deprived Mexico of revolutionary progress in energy technologies. Production has declined from a peak of 3.6 million barrels a day in 2004 to about 2.34 million barrels a day today. This decline clashes sharply with the global revolution and private energy production. It influenced President

Enrique Pena Nieto to make energy reform a pillar of his policy agenda in December 2012.

The pace, breadth, and depth of implementing these energy reforms has been unprecedented. In December 2013, within a year of taking office, Mexico passed a constitutional reform that allow private investment and competition in every aspect of its energy sector. On August 12, 2014, Mexico passed the secondary legislation needed to implement reforms related to oil and gas production, pipelines, private competition in the power sector, and competitive retail sales.

In December 2014, just 2 years after taking office, the Mexican Government announced its first round of international tenders, with five phases offering 160 fields.

In the power sector, by the end of August 2014, Mexico created an independent systems operator for a new electricity market. Under the new market, independent power producers will bid against the national power company, CFE, to supply electricity, breaking the government's monopoly control over the electricity sector.

By February 2015, Mexico published the draft market rules for the power sector. For all of you familiar with the situation in your own States, you understand how quickly that is. In January 2016, the new power market will go live.

Still, reform has not been without challenges. Since Mexico amended its constitution to allow private investments in energy, the price of the benchmark for crude oil has dropped for a range of $105 and $110 a barrel to somewhere between $50 and $60 a barrel in recent months.

These lower prices are forcing oil companies to reduce capital expenditures, financial institutions to cut investments, oil-producing countries to demonstrate that their fiscal terms compete with the best international alternatives. Simply put, to compete effectively, Mexico has to show that its assets, contracts, fiscal terms, and local and business and security environments offer investment returns that attract technology and capital to Mexico at a time when the industry is cutting expenditures and costs.

On July 15, Mexico saw the impact of this difficult business climate. Thirty-nine companies paid for data to investigate the blocks offered in phase one. Thirty-four companies qualified to compete. But on July 15, there were only 7 real bids, only 2 out of 14 blocks were awarded. The consortium formed by Sierra Oil & Gas, a newly formed Mexican company, Talos Energy, a Houston-based energy, and Premier Oil won both bids.

Mexican officials will spend time investigating and applying the lessons from phase one. Some of the kinds of things that they will see are that the field offerings were small in phase one and perhaps not of high interest to large companies. The contracts that were offered were for short periods of time, and not necessarily complying with some of the potentially complex formations that were available. The fiscal terms may not have met investor requirements given increased pressure to cut costs and capital expenditures.

But the important point is that all of these kinds of issues can be addressed. And indeed, these difficult first moments could help

consolidate the profound need for sensitivity to international competitiveness that Mexico needs to fully fulfill its aspirations.

Less attention has been focused on electricity than on oil production, but the transformation of the power sector could be the linchpin that sustains political support for energy reform. By the end of President Pena Nieto's administration, successful implementation of its oil tenders could allow Mexico to secure contracts for tens of billions of dollars in new investments, but those investments will take time to reverse production declines.

In the power sector, the vast expansion of U.S. natural gas imports has already allowed CFE to lower Mexican electricity prices by 27 percent for industry and between 2 to 11 percent for households.

Polls suggest that the next Mexican Government and Parliament after 2018 will still support energy reform. But the best way to secure that support is if the Mexican people and Mexican industry benefit tangibly from the results. And already that transformation is underway in the electricity sector.

The completion——

Mr. DUNCAN. Ambassador, we have about 6 minutes, so if you could wrap up and we will begin the questions.

Mr. PASCUAL. Okay. I apologize.

The completion of these reforms, let me just say, gives a strategic opportunity for the United States, Canada, and Mexico. And if one looks at this from the perspective contrasting to OPEC, North America is never going to be an energy cartel. But we have an opportunity to do several things.

First, we have an opportunity to export. And by executing the kinds of oil swaps between Mexico and the United States, it is a potential to open that market.

Secondly, we have an opportunity to work together in the Caribbean, where Petrocaribe is under stress, especially as a result of the low prices. We have an opportunity to work together in Central America in extending gas and power. We have an opportunity to really transform this region of North America as an influence for change in the Western Hemisphere.

These price changes in Mexico have made these opening steps difficult, but at the same time, the correct thing to learn from this is the opportunity to learn. The steps that you are taking with this committee have been essential to allowing that process to move forward. I thank you for that and look forward to answering your questions.

[The prepared statement of Mr. Pascual follows:]

House Foreign Affairs Committee
Subcommittee on the Western Hemisphere

Pursuing North American Energy Independence:
Mexico's Energy Reforms

Carlos Pascual
Senior Vice President, IHS

July 23, 2015

Chairman Duncan, Ranking Member Sires, and members of the Committee, I appreciate the opportunity to testify before you on Mexico's Energy Reforms and their significance for North America.

Since 2012, Mexico has embarked on an historic opening of its energy sector to allow private investment and competition in the production, transit and sale of oil, gas and electricity, and in the coming years in retail markets as well. On July 15, Mexico completed the first tender since 1938 for the sale of hydrocarbon assets. Even though the results did not meet expectations, it formalized a process of opening the energy sector to private investment – and with that, the benefits that will eventually ensue from infusions of capital and technology. Mexico will benefit from these reforms, but so will American businesses and workers. North America can improve its energy security and play a more profound role in stabilizing energy markets regionally and globally. I will address these issues in my testimony.

I appear before you in my capacity as Senior Vice President for IHS. IHS is a global consultancy that specializes in energy, capital-intensive industries, data and analysis with a worldwide presence. While my responsibilities are global, I am based in Mexico, and have had the opportunity to engage many of the key players in Mexico's energy reforms. I previously served as the Coordinator for International Energy Affairs and Special Envoy on Energy at the State Department. I am associated with Columbia University as a Fellow at the Center on Global Energy Policy. I served as the U.S. Ambassador to Mexico from 2009 to 2011.

Mexico's Energy Reforms

Although Mexico nationalized its hydrocarbons sector in 1938, energy cooperation between the United States and Mexico has a long history. U.S. oil investor Henry Clay Pierce helped finance the start of Mexican oil production in 1901. American oil entrepreneur Edward Dohenny, one of the pioneers of the oil industry in California, founded the Pan American Petroleum and Transit Company in Mexico and drilled the Cerro Azul No. 4 well in Mexico, which became the world's largest producing oil well at the time. By the early 1920s, Mexico became the world's largest exporter of oil and the second largest producer after the United States.

The House of Representatives played a key role in resuscitating that tradition of cooperation by championing the passage of the U.S.-Mexico Transboundary Hydrocarbons Agreement in 2013, which has made possible the development of transboundary reserves that require the cooperation of both the United States and Mexico. The Agreement creates a framework for U.S. and Mexican companies to

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work together on the joint exploration and production of reservoirs that cross our maritime boundary anywhere in the Gulf of Mexico. As a result, it provides a foundation for increasing energy supplies that will benefit both economies and it promotes cooperation between our two countries on safety and environmental regulation, including providing for joint inspection and enforcement of activity under the Agreement.

Although Mexican oil production grew steadily in the 1900s, as of 1938 the Mexican constitution prohibited private investment, and as a result deprived Mexico of revolutionary progress in energy technologies. Production peaked in 2004 at about 3.6 million barrels per day (bpd), and since then has declined to current levels of about 2.35 million bpd – a 35 percent decline. This decline, contrasted with the general international practice of allowing international companies to participate in oil and gas production around the world, influenced the Mexican government under President Enrique Peña Nieto to make energy reform a core pillar of its policy agenda when it took office in December 2012. Equally important was the recognition that a healthy energy position was necessary to support economic growth and create opportunities for Mexican workers, and that such a position required opening up the industry. The pace, breadth and depth of implementing these energy reforms has been unprecedented.

In December 2013, within a year of taking office, Mexico passed a constitutional reform to allow private investment and competition in every aspect of its energy sector. This included the support of two thirds of the Mexican House of Representatives and Senate, and a majority of the 32 state legislatures. On August 12, 2014, Mexico passed the secondary legislation needed to implement reforms related to oil and gas production, pipelines, private competition in the power sector, and competitive retail sales. The very next day, Mexico announced the results of the so-called Round 0, allocating 83% of the proven and probable oil reserves to the state oil company PEMEX, but in so doing making clear that this was the basis to end PEMEX's role as a government agency and transform it into a productive enterprise that must survive on its own resources. In December 2014, just two years after it took office, the Mexican government announced its first round of international tenders – what they call Ronda 1 – with five phases that will consider the sale of about 160 fields over the course of a year. I will come back to the implementation of Round 1 and future prospects later in the testimony.

In the power sector, by end of August 2014 Mexico created an independent systems operator for a new electricity market called the National Center for the Control of Energy (CENACE). In doing so, it created the foundation for competition with the monopoly held by the Federal Electricity Commission (CFE). CFE could contract with independent power producers (IPPs) for power supply, but under the new market, these IPPs will be also able to bid against CFE to supply electricity to the power market, breaking the government's monopoly control over electricity supply. By February 2015, the Mexican Government published the draft new market rules for the power sector. In September it will conduct a live test of the power market, and the new power market and its associated elements for a capacity market, clean energy certificates, and transmission and distribution will come into force in January 2016.

Private investment is also advancing in pipelines and refineries, and will be open for retail sales in 2016. Opportunities will expand further when subsidies are phased out on liquefied petroleum gas (LPG) in 2016 and for gasoline in 2018. Both CFE and PEMEX have completed tenders to expand the national gas pipeline system and to complete new interconnections with the United States. This expansion of the pipeline system will bring U.S. natural gas to Mexico, help reduce household and industrial costs, and increase North American competitiveness. By the end of 2015, the Mexican Energy Regulatory Commission will complete new regulations that will allow investments in existing and new refineries, either as a partner or in competition with PEMEX.

North America's Interests

The strategic and commercial significance of these reforms for the United States and North America cuts across the energy sector and beyond.

In hydrocarbons production, the completion of these reforms gives the United States, Canada and Mexico an opportunity to make North America a new foundation for global energy security. On November 27, 2014, OPEC demonstrated that, today, it would not act as a bloc to adjust production and affect energy prices. Instead, Saudi Arabia, Kuwait and UAE decided to protect their global market share in oil, and to rely on market forces to rebalance supply and demand to the disadvantage of high cost producers.[1] North America can contribute to filling the space left by OPEC to help shape global oil market conditions that drive stable and sustained economic growth. The U.S. Energy Information Administration has projected that the United States, in a high case scenario, could increase crude production from current levels of 9.3 million bpd to 13.3 million bpd in 2020. The National Energy Board of Canada's high forecast estimates that Canada could increase its production from 3.6 million bpd in 2015 to 4.3 million bpd in 2020. Mexico now has the chance to enter this club of rising production as its energy reforms attract investment. North America will not act like an oil cartel. Rather, it represents three democratic and market-oriented states establishing a reliable base of production that will set standards in international conduct and transparency in energy development and trade that can influence the global industry. But to achieve this new foundation, the United States must be an exporter, a key issue addressed below in the policy recommendations.

Mexico's new focus on extending gas pipelines has created business opportunities for U.S. companies and investors. In one pipeline extending from Arizona to Mazatlan on the Mexican Pacific coast, El Paso Natural Gas (a Kinder Morgan subsidiary) won the contract to build the U.S. portion. For the Los Ramones II pipeline, which completes a route from Agua Dulce, Texas to Aguascalientes and Queretaro in Mexico, the American investment firms Blackrock and First Reserve have invested $900 million to acquire 45% ownership. On June 22, 2015, CFE announced tenders for 24 energy infrastructure projects estimated at $10 billion in investment, including a $3.1 billion subsea pipeline from Brownsville to the Mexican port of Tuxpan and seven additional pipeline projects. U.S. companies have comparative advantages to participate in construction and finance. The extension of

[1] IHS, *Oil Change: A World Without OPEC as We Knew It* (February 2015)

natural gas pipelines and lower electricity prices directly benefit companies like GM, Ford, Chrysler, Boeing, GE, Intel and other major American companies invested in Mexico, operating integrated production lines and global export platforms that have made their American products more competitive in the United States and globally.

Similar investment patterns in the power sector and refineries are possible as final regulations and market rules come into effect. CFE has launched a major program to invest in natural gas power, creating opportunities for suppliers of generation equipment, but also leaving much of the renewable energy sector open to private investors. Mexico imports 40% of its gasoline and has huge and urgent demand to upgrade existing refineries to meet environmental standards and expand supply. All of these openings in the energy sector will certainly drive Mexico's economic growth and competitiveness, but they represent a huge strategic and business opportunity for the United States. To realize that potential, Mexico and its investment partners will have to manage difficult market challenges.

Ronda 1 and Global Oil Markets

Since Mexico amended its constitution to allow private investment in energy, the price of the Brent benchmark price for crude oil has dropped from a range of $105-110 per barrel to about $50-60 per barrel over recent months. This hearing is not the forum to address the reasons for this price collapse, but there is no doubt that it affects the implementation of Mexico's reforms. Lower prices are forcing oil companies to reduce capital expenditures,[2] financial institutions to cut investments in independent producers, and oil producing countries to demonstrate that their fiscal terms compete with the best international alternatives. Mexico has a disadvantage: international players do not have first-hand knowledge of Mexican assets and how to operate in Mexico. Simply put, to compete effectively, Mexico has to make completely clear that its assets, contracts, fiscal terms, and local business and security environments offer investment returns that attract production and capital to Mexico at a time when the industry is cutting expenditures and costs.

Mexico has announced plans for five phases of bids under Round 1 of its hydrocarbons tender process: (1) shallow water exploration (14 blocks), (2) shallow water production (5 blocks), (3) onshore (26 blocks), (4) deep water (13 blocks) and extra heavy oil (11 blocks), and (5) unconventional fields (61 blocks) and Chicontepec (a massive, complex onshore field,12 blocks). Bids for phase 1 were opened on July 15. Bids will be opened for phases 2 and 3 on, respectively, September 30 and December 15. The timelines for the other phases have not yet been announced

On July 15, Mexico saw the impact of the difficult business climate in global oil production with the disappointing interest in Phase 1. 39 companies paid for data to investigate the blocks offered in Phase 1, 34 companies prequalified to compete, but on July 15 there were only 9 bidders, with 4 of the bids coming from consortia. Only two out of fourteen blocks were awarded. Six blocks received offers, but five were under the minimum bids set by the government and were not awarded, and one lost

[2] *IHS Upstream Spending Report – 1Q 2015.* Global exploration and production (E&P) spending is expected to drop by 16.6% year on year in 2015, followed by a further 12.6% decline in 2016.

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to another bidder. The consortium formed by Sierra Oil & Gas (a newly formed Mexican company), Talos Energy, and Premier Oil won both blocks. Talos is a Houston-based company.

Mexican officials will spend time investigating and applying lessons from Phase 1, either to contract terms for phases 2 and 3, but most likely for a deep-water tender that has yet to be announced. Some key issues might include:

- Field offerings were small, and perhaps not of high interest to the larger international companies.
- Contracts were offered for four years with a two-year extension, but some companies may have wanted longer contract terms to perform more extensive exploration, such as whether there might be complex pre-salt formations that could be exploited at deeper levels.
- Government minimum bids may have been influenced by historic PEMEX production costs, which may be lower than the costs estimated by potential investors.
- Fiscal terms may not have met investor requirements to mobilize capital given increased pressure from low international oil prices to cut costs and capital expenditures.

The important point is that all of these issues can be addressed. Mexico took an historic first step, demonstrating the potential for an important combination of international oil partners, American capital, and a start-up Mexican private industry. There will be more issues to address, such as the capacity of the Mexican service sector, whether other Mexican private companies can secure international partners, the role PEMEX will play in future bid rounds, and pipeline and storage capacity. However, with the sector now open for investment, these potential issues can be turned into business opportunities. If the Mexican government and outside investors take that perspective, these difficult first moments could help consolidate the profound need for sensitivity to international markets and competitiveness that Mexico needs to demonstrate to fulfill its aspirations.

Transforming the Power Sector

Less attention has been focused on electricity than on oil production, but the transformation of the power sector could be the lynchpin that sustains political support for energy reform. By the end of the President Peña Nieto's Administration, successful implementation of its oil tenders should allow Mexico to demonstrate contracts for tens of billions of dollars in new investment, but those investments will take time to halt and reverse current production declines. In the power sector, the fast expansion of U.S. natural gas imports has already allowed CFE to lower Mexican electricity prices by 27% for industry, and between 2-11% for households. Investments in natural gas pipelines from the United States will help Mexico sustain these major and tangible gains that benefit consumers and industry and help create jobs. President Peña Nieto retains a majority in parliament after mid-term elections. Polls suggest that the next government and parliament after 2018 will still support energy reform. But the best way to secure that support is if the Mexican people benefit tangibly from the results – and here the power sector is key.

Carlos Pascual, Senior Vice President, Energy and International Affairs.
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As in oil and gas, there will be implementation challenges as Mexico overhauls every aspect of its power sector. It will face a conundrum many states have seen in the United States: as competition drives down prices, how do you create an incentive to invest in capacity? As competition increases with legacy utilities and takes away parts of their base market, how do you manage stranded assets that are not competitive, must be closed, and workers laid off? As clean energy targets are established, what are the cost implications and how are intermittent renewables integrated with base-load generation requirements? It is inevitable that Mexico will face these questions and need industry partnerships and technical support to avoid mistakes where it can, and adjust quickly when needed.

Both CFE and the Mexican government's National Program for the Electricity Sector make clear that natural gas will underpin the Mexican power sector and CFE's investments through 2020. Yet Mexico has also made very aggressive commitments on clean (zero greenhouse gas emission) energy: 35% of all generation by 2024, with emissions peaking in 2026. It will reduce GHG emissions between 25-40% by 2030 relative to business as usual, depending on market conditions. To meet these targets, Mexico will conduct long-term auctions for new capacity. With CFE focused on the gas sector, the renewables sector will offer a huge target for private investment, where the United States can be a major supplier and investor.

Policy Implications

From this discussion, let me highlight five areas for policy actions that might be considered by this Committee that would enhance the future energy position of North America.

1. Oil Exports. I indicated earlier the strategic benefits of cooperation among Mexico, Canada, and the United States to make North America a foundation for energy security – for our own region, and with a stabilizing impact globally. North American self-reliance on energy would be a critical point of flexibility and leverage in policy discussions with countries in Asia and the Middle East. North America will still depend on global oil prices – we cannot disconnect from global markets – but we are less vulnerable to interruptions of energy. To fully realize the benefits of our energy abundance, we should also have the opportunity to export oil. Other Congressional committees have addressed this issue. IHS has completed two exhaustive studies[3] that demonstrate that lifting the ban on oil exports will bring major benefits across the United States between 2016-2030:

- $86 billion in additional GDP,
- about 400,000 new jobs annually,
- 25% higher pay for workers in the energy industry supply chain – an additional $158 per household, and
- $1.3 trillion in federal, state and municipal revenue from corporate and personal taxes.

[3] See IHS, *US Crude Oil Export Decision: Assessing the impact of the export ban and free trade on the US economy* (2014), and IHS, *Unleashing the Supply Chain: Assessing the economic impact of a US crude oil free trade policy* (2015).

The strategic benefits for North America only accentuate the benefits we would see from lifting the export ban on the U.S. economy.

2. North American Energy Forum. Before the passage of its energy reforms, Mexico could not address energy seriously in its annual North American Leader Summits and its parliamentary exchanges with the United States. That can now change and be underpinned by a North American Energy Forum that would include the energy ministers of all three countries, and also establish a forum for private company engagement. To be effective, it would create committees or working groups that facilitate public-private engagement. In oil and gas, companies and governments could cooperate on sharing best practices on issues from capturing methane emissions, to hydraulic fracturing, to transparency in contracting and payments. Such a forum would generate inputs for policy measures, and perhaps financing opportunities. It would make cooperation among energy leaders in government, legislatures, and the private sector more concrete and presumably more effective.

3. The Caribbean. Since 2005, Venezuela has subsidized oil for the Caribbean states through an initiative called Petrocaribe as a means to increase its relevance and influence and bolster its opposition and hostility to the United States. The global collapse in oil prices has deepened what was already a severe financial crisis in Venezuela, compromising its ability to sustain these subsidies. The loss of these subsidies will create economic hardship for many of the Caribbean nations. But with lower oil prices, the Caribbean states have a chance to find competitive sources of supply. There is currently an active dialogue among the United States, Canada and Mexico through the North American Leaders Forum to open new sources of supply or financing for alternative forms of power that reduce the Caribbean's dependence on high-priced diesel. The openings in Mexico for private investment and international engagement will make it easier to make Mexico a partner in such endeavors. To have an impact, the United States will need to invest in technical assistance and financing, potentially through the Overseas Private Investment Corporation, to bring alternatives to Petrocaribe within commercial reach.

4. Central America. A power line now exists from Mexico to Panama that has begun to facilitate electricity trade across Central America. The Inter-American Development Bank has helped finance infrastructure and technical assistance costs. The United States has provided technical assistance to help develop the market rules and conditions for private investment. The question of power access and costs is a critical underlying factor in the Central American economies, which may pay 20-50% more for power than we would pay in the United States. But just as important, the lack of reliability affects business interests, job creation, and educational opportunities – all factors central to combating organized crime and illegal migration from Central America to Mexico and the United States. Mexico is already an electrical power source for Central America, and it could provide additional supplies at competitive prices that would reduce costs and increase reliability in the region. There is also a joint effort among Mexico, Guatemala, El Salvador and Honduras to build a natural gas pipeline from Mexico at an estimated cost of $1.2 billion. The pipeline would introduce another lower cost energy and fuel source. This Committee is well placed to encourage the Administration to engage aggressively with Mexico on energy supply to Central America, and to help secure the resources for technical assistance through the State Department and USAID, and for investment through

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OPIC, to help the emerging Central American power market in Central America contribute to regional stability.

5. Mexican Power. We have already discussed the complex challenges that face the Mexican power sector. The United States has skills and experience to contribute, perhaps most usefully through energy partnerships between utilities, and through targeted technical assistance. Such programs exist in USAID, the State Department and the Department of Energy. There is now a political opening that did not exist before Mexico's energy reforms to target and expand these in ways that will support private investment.

Mr. Chairman, I congratulate the Committee for its leadership in addressing the potential that Mexico's energy reforms offer strategically and commercially – not just to Mexico, but to the United States and North America. In the energy field, no other region has today what North America can offer: energy abundance and technology leadership across three democratic states and market economies, with huge consumer markets, financing potential, and a global reach and influence. The successful implementation of Mexico's reforms is critical to make the most of these opportunities. The global oil price collapse has made the reform challenge more complex for Mexico. The correct response is to learn from these market conditions, adapt, and use these lessons to capture the potential for investment, production and trade. Thank you for the opportunity to address the committee. I look forward to your questions.

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Mr. DUNCAN. Thank you.

Dr. Tunstall.

STATEMENT OF THOMAS TUNSTALL, PH.D., RESEARCH DIRECTOR, THE UNIVERSITY OF TEXAS AT SAN ANTONIO INSTITUTE FOR ECONOMIC DEVELOPMENT

Mr. TUNSTALL. Thank you. Good afternoon.

I would like to thank Chairman Duncan and the members of the subcommittee for extending the privilege for me to testify here today.

My name is Thomas Tunstall. I am the research director at the University of Texas at San Antonio's Institute for Economic Development. We have undertaken extensive research to date on Eagle Ford in south Texas, specifically addressing issues dealing with the economic impact and sustainable community development issues.

In September of last year, we completed our fourth economic report on the Eagle Ford Shale in Texas, the formation which extends well into Mexico. In that report for calendar year 2013, we estimated the Eagle Ford Shale generated $87 billion in economic impact supporting over 150,000 full-time jobs. This unexpected windfall has given communities in the area an opportunity to build a foundation for long-term sustainable economic and community development.

It is worthwhile to note that Mexico's oil production peaked in 2004 and has been declining steadily since then. In fact, were it not for energy reform in Mexico, the country would likely have been facing the prospect of becoming an oil importer in the next few years. As it is, Mexico already imports substantial quantities of natural gas from the United States, over 650 billion cubic feet annually in 2013 and 2014, with even greater quantities expected in the next few years. Yet, shale gas reserves alone in Mexico are estimated to be over 500 trillion cubic feet.

Mexico's energy reform consists of several blocks that include deep-water fields, shallow-water fields, onshore conventional fields, and shale fields. Our research at the University of Texas at San Antonio has focused primarily on the shale field opportunities in the Mexican states of Coahuila, Nuevo Leon, Tamaulipas, and Vera Cruz.

The first recommendation in terms of policy prescriptions that I have for the committee is to expedite the proposed oil swap with Mexico. Most of the refineries along the Gulf Coast in the U.S. were optimized to process heavier crude oil that the U.S. expected to be importing from OPEC countries or from Canada. At the same time, the U.S. is awash in light crude oil from shale formations. Much of Mexico's oil production tends to be the heavier crude blends, therefore it makes sense for the Commerce Department to approve the oil swap arrangements as soon as possible.

Second, Mexican nationals sponsored by exploration and production companies will make several training visits to the U.S. over the course of the next few years, sometimes daily. Experienced U.S. workers will also be making trips to Mexico to supervise operations.

While such border crossings would be expected to be a routine procedure, experience to date suggests that significant delays of

hours at a time are not uncommon, which burden operators with unnecessary costs and delays. Developing a streamlined process for worker knowledge transfer from the U.S. to Mexico will be an important step to ensure the ultimate success of Mexico's energy reform implementation.

Thirdly, the logistical infrastructure in northern Mexico in terms of roads, housing, workforce, medical facilities, rail, telecommunications, and pipelines is relatively undeveloped. The Federal and state governments in Mexico, and perhaps even in a coordinated effort with the U.S., should make a commitment to invest in the infrastructure that will be necessary to support economic development.

And finally, U.S. hydrocarbon policy is highly inconsistent. For example, U.S. law allows for unlimited, unrestricted export of refined products, such as jet fuel, gasoline, and diesel fuel. Further, natural gas can be readily exported to any country with which the U.S. maintains a free trade agreement, such as Mexico and Canada. Even condensate, an ultra-light crude oil, has been approved for export from the U.S.

In essence, the United States now exports most classes of hydrocarbon products. The existing ban on crude oil export that dates back to the 1970s is arbitrary and penalizes both exploration and production companies, as well as landowners.

Again, I would like to thank the members of the committee for their kind attention. We brought copies of our most recent economic report on Mexico with us and we would be happy to share those with the committee.

[The prepared statement of Mr. Tunstall follows:]

Testimony by Dr. Thomas Tunstall

Research Director, Institute for Economic Development

The University of Texas at San Antonio

Hearing on "Pursuing North American Energy Independence: Mexico's Energy Reforms"

House Committee on Foreign Affairs, Subcommittee on the Western Hemisphere

July 23, 2015

Good afternoon. I would like to thank Chairman Duncan and the members of the subcommittee for extending me the privilege to testify here today. My name is Thomas Tunstall. I am the research director for the University of Texas at San Antonio Institute for Economic Development. Our institute has undertaken extensive research to-date on the Eagle Ford Shale in South Texas, specifically addressing issues dealing with the economic impact and sustainable community development. In September of last year, we completed our fourth economic impact report on the Eagle Ford in Texas. In that report, for the calendar year 2013, we estimated that the Eagle Ford Shale generated $87 billion in economic impact, supporting over 150,000 full-time jobs. While the recent decrease in oil prices has resulted in some job loss, the activity in the Eagle Ford in South Texas continues to have a significant impact on the region – one of the traditionally poorest areas of the state if not the entire country. Prior to the ramp-up of activity in the Eagle Ford, many of the counties in the region were losing population. This unexpected

windfall has given communities in the area an opportunity to build a foundation for long-term sustainable economic and community development.

The Eagle Ford is one of the more interesting shale formations that have been extensively explored to-date. The shale is noteworthy because it contains significant quantities of oil and gas, as well as condensate, also known as wet gas or ultralight crude oil. The Eagle Ford is also arguably the most productive shale formation for oil production in the United States or anywhere else in the world so far. And the while the same shale field is called the Burgos Basin across the Rio Grande border in Mexico, the Eagle Ford and other formations continue well into Mexico, over to Monterrey, and then along the Gulf Coast as far south as Vera Cruz.

It is worthwhile to note that Mexico's oil production peaked in 2004, and has been declining steadily since then. In fact, were it not for energy reform in Mexico, the country would likely have been facing the prospect of becoming an oil importer in the next few years. Mexico already imports substantial quantities of natural gas from the U.S. – over 650 billion cubic feet annually in 2013 and 2014, with even greater quantities expected in the next few years by way of additional pipeline capacity that has recently been developed. At the same time, shale gas reserves alone in Mexico are estimated to be 545 *trillion* cubic feet.

Mexico's energy reform consists of several types of fields and blocks that will be auctioned off in the coming months. These blocks include deep-water fields, shallow

water fields, onshore conventional fields, and shale fields. Our research at the University of Texas at San Antonio has focused primarily on the shale field opportunities in the Mexican states of Coahuila, Nuevo Leon, Tamaulipas and Vera Cruz.

While the experience in the Eagle Ford in Texas can be a useful point of reference for the opportunities for Mexico's shale, there are some important differences to note. Although there have been infrastructure challenges in South Texas, most were overcome relatively quickly. In Mexico, the infrastructure challenges will be much more significant. In order to address some of the key issues at hand, I would like to highlight four policy prescriptions that I believe would encourage the development of the Mexican energy industry, increase trade activity between the U.S. and Mexico, and bolster North American energy security.

Policy Prescriptions

1. Expedite oil swap approval

Most of the refineries along the Gulf Coast in the U.S. were optimized to process heavier crude oil that the U.S. expected to be importing from OPEC countries or Canada. However, because of the unexpected increase in light crude oil production from shale, the refineries are processing a type of oil that they did not expect to receive. Much of Mexico's production tends to be heaver crudes. And in addition, much of Mexico's refining capacity is better equipped to process lighter crudes of the type coming from U.S. shale fields. Both from an optimization as well as energy security standpoint, it

makes sense to encourage the Department of Commerce to approve the oil swap arrangements with Mexico as soon as possible.

2. Streamline border-crossing process for key industry employees in order to facilitate workforce development

The bulk of worldwide expertise dealing with unconventional extraction techniques resides in the United States, especially in Texas. While the ultimate success of energy reform still depends on the implementation, Mexico's proximity to Texas puts the country in a good position to benefit from the technologies and techniques developed in the United States. However, in order for a suitable workforce to be developed in Mexico, it is often necessary for employees to be trained by experienced staff on working rigs located in the United States. Typically, Mexican nationals sponsored by exploration and production companies will make several training visits to the U.S., sometimes daily. Experienced U.S. workers will also increasingly be making trips to Mexico to supervise operations. While such border crossings would be expected to be a routine procedure, experience to-date suggests that significant delays of hours at a time are not uncommon, which burden operators with unnecessary costs and delays. Developing a streamlined process for worker knowledge-transfer from the U.S. to Mexico will be an important step to ensure the ultimate success of Mexican energy reform implementation.

3. Supply chain logistics between the U.S. and Mexico.

Unconventional techniques require a wide variety of personnel and equipment to complete a shale well. The logistical infrastructure in northern Mexico in terms of roads,

housing, workforce, medical facilities, rail, telecommunications and pipelines is significantly undeveloped. In order to successfully develop the shale opportunities in Mexico, the federal and state governments there (perhaps in coordination with the U.S.) must make a commitment to invest in the infrastructure that will be necessary to support oil and gas development, as well as provide a foundation for other types of industry in the future. Developing the supply chain network that will be required represents a significant opportunity to increase the involvement in Mexico for small-medium enterprises in Texas and other oil producing states.

4. Crude oil export

U.S. hydrocarbon export policy is inconsistent. Currently, U.S. law allows for unlimited, unrestricted export of refined products such as jet fuel, gasoline and diesel fuel. Further, natural gas can be readily exported to any country with which the U.S. maintains a free trade agreement, such as Mexico and Canada. Several companies have either obtained permits, or are in the process of investing billions of dollars building facilities and obtaining permits that will allow them to export natural gas to any country in the world from the U.S. While plentiful supplies of natural gas in the U.S. keep the price around $3 per thousand cubic feet (mcf), other countries pay significantly more for their supply of natural gas. Europe pays around $11-12 per mcf and Japan is paying $16-17 per mcf. Most recently, the Commerce Department has authorized companies to export condensate – essentially an ultra-light crude oil with an API (American Petroleum Institute) gravity of 45 or higher.

In essence, the United States now exports most classes of hydrocarbon products - refined petroleum products, natural gas, manufactured products that use natural gas as a feedstock, and condensate (or ultra-light crude oil). Yet if the crude oil has an API gravity below 45, export is not allowed. This standard is arbitrary and depresses U.S. oil production. The restrictions force WTI (West Texas Intermediate) crude oil to be sold at a discount to Brent crude. Lifting the export ban on crude oil would boost U.S. production and would no longer unfairly penalize exploration and production companies, as well as mineral rights property owners in the U.S. - both of whom are currently forced to sell their crude oil only to U.S. and some Canadian customers.

Once again, I would like to thank the members of the committee for their kind attention, and the opportunity to speak before you today.

Mr. DUNCAN. Thank you so much.

Dr. Payan.

STATEMENT OF TONY PAYAN, PH.D., DIRECTOR, MEXICO CENTER, BAKER INSTITUTE FOR PUBLIC POLICY, RICE UNIVERSITY

Mr. PAYAN. Thank you very much, Chairman Duncan, and thank you very much to the committee for the invitation to be here before you.

I am going to focus on what threatens the successful implementation of energy reform in Mexico. I think that we know the potential that is there. We know that the Mexican Government has to be commended for opening the sector. It is an unprecedented opening that reverses 76 years of a state monopoly. And, of course, it is also, I think, an enormous step since NAFTA. So in that sense, the Mexican Government has to be commended.

But we cannot forget that Mexico is sometimes its own worst enemy. And there are some in-built structural issues within Mexico that may threaten yet the success of energy reform and may actually be the answer to Chairman Duncan's question over whether Mexico is truly a like-minded partner and whether it can truly engage North America as an equal and certainly constitute a single energy North American market with the United States and Canada.

And so I think that there are some steps that we have to take to be able to get Mexico to that step. And I want to point out various things that I think are threatening energy reform in Mexico.

Number one is the fact that the regulatory—well, first of all, the intentionality or the intent behind reform continue to be in Mexico not truly a conversion to a belief in market forces, but rather an understanding that the country was headed for a situation by about 2020 in which it would become a net importer of oil and it would actually lose valuable national wealth having to import energy and also having to slash its Federal budget by about 35 percent, because that is how much Mexico depends on oil revenue.

So with this in mind, these impending circumstances made Mexico essentially turn to opening. But it is clear that this is a managed opening, and the basis for this opening is really about revenue maintenance and revenue enhancement. Some of the contractual terms that were offered in the beginning that try to cap revenue for foreign and private investors show this, as well as some of the terms that are being offered.

And I think many of these companies, IOCs and other companies, decided to wait and see what is going to happen and try to learn from the experience of those who might venture into Mexico in the future first. And I think that is what kept a lot of these companies from round one. There is still a lot of learning to be done. And they also have a number of other questions that are important, and I mentioned a few of them.

First of all, the rule of law in Mexico. Mexico has insisted so far, even though the government is listening very closely to the industry and seems to be very responsive to the industry, I think the government has insisted that any disputes have to be resolved in Mexican courts. They are kind of resistant to the possibility of

international arbitration of any disputes in the contracts, and companies are pushing back on this as well.

So the Mexican Government wants to reserve itself based on a particular clause that calls for administrative rescission of a contract if there is any failure by these investors in Mexico, and so the Mexican Government still reserves itself the right to rescind any contracts. And so there is a lot of trepidation by the industry in this regard.

So the Mexican Government continues to play around with some of these concepts, not really truly trying to open and allow the markets to determine investment, exploration, sales, and profits, but rather try to manage this opening. And I think the Mexican Government ought to be commended for opening, but at the same time pushed to truly let the market decide what the future of this energy reform is going to be.

The second concern that companies for the most part have expressed is security issues. Now, it varies by sector. The international oil companies, the large corporations that are going to be operating in the Gulf, are considerably less worried about the situation on the ground, because, obviously, in the Gulf there will not be the 60 to 80 criminal organizations that currently operate in Mexico threatening their investments.

Although, many of them will have to have operations on ports along the Mexican Gulf, and there is a lot of interest in trying to explore the security situation in the Campeche, Vera Cruz, and especially in the Tamaulipas region, where there is a lot of concern regarding the operations of these criminal groups.

The shale sector is frozen for now, but eventually it will roll down from Texas across the border into northeastern Mexico. And these companies are smaller, and they have less experience in dealing with security issues, and they will be much more vulnerable to these problems that are quite, quite severe in States like Tamaulipas and Coahuila, as well as Chihuahua. So this is another concern that the industry has obviously expressed quite a bit.

I think the Merida Initiative support for Mexico has had its successes. But at the same time, during the last 10 years, the Calderon administration and the almost 3 years of the Pena administration have essentially resulted in an unintended consequence, which is the fragmentation of organized crime. And instead of having four large groups operating within Mexico controlling different activities within the country, we now have 60 to 80 different groups that control towns and corridors and roads and cities, and I think that this needs to be paid attention.

In that sense, I think the Merida Initiative needs to be reviewed to look at the police forces much more closely, and they need to be looking at the institutional development of the police system, of the judicial system. Because we cannot guarantee the success of energy reform if there isn't a strong police, a strong judiciary, but at the same time strong democratic and accountable institutions.

There is another issue that also has been a concern of the energy industry—and I will conclude with that final point—and that is corruption. Look, the 15 July round one was an important round, and it kind of ended with a thud. However, this doesn't mean that this will be a midterm and long-term failure.

Clearly, the development of the energy sector in Mexico will happen. But there is already strong opposition in Mexico because the company that obtained those two lots, those two plays, appears to be a company that has some strings to Mexican politicians, some of them kind of hidden strings, but it shows that in Mexico the political class is beginning to position itself to profit enormously from this.

They clearly benefitted from the privatization of Telmex, they clearly benefitted from the privatization of other companies, and created enormous monopolies in Mexico. The worst scenario that can happen is that the political class in Mexico take advantage of this opening and themselves monopolize their ability to use this opening to enrich themselves.

And that, by the way, is a great concern of the energy sector, that they will be vulnerable to these extortions and these corruption schemes. And I suggest that maybe we ought to be finding ways to ensure that these companies can be open when corruption comes to their doormat and that they can deal with it effectively without ourselves having to penalize them for trying to do business in Mexico.

And I am open to your questions.

[The prepared statement of Mr. Payan follows:]

Prepared Statement for the House Committee on Foreign Affairs,

Subcommittee on the Western Hemisphere

Hearing on

"Pursuing North American Energy Independence: Mexico's Energy Reforms"

July 23, 2015

Tony Payan, Ph.D.

James A. Baker III Institute for Public Policy

Rice University

Houston, Texas

The purpose of my remarks today is to examine the basis for Mexico's recent energy reforms, to assess the major threats to its effective implementation and success, and to identify policy challenges that, if addressed, can strengthen the United States' relationship with Mexico.

Energy Reform Was Not a Choice

Mexico's leaders did not deliberately choose to enact energy reforms. Rather, it was a policy shift forced by circumstances. Mexico has seen its oil production drop from about 3.5 million barrels per day (b/d) in 2008 to about 2.3 million b/d in 2015. At the same time, the country's energy consumption continues to grow. At current rates of production and consumption, Mexico will become a net importer of oil somewhere around 2020.[1] Complicating matters, the country's federal budget is heavily dependent on oil revenues—about 30% to 35% of the federal budget comes from oil revenues.[2] Because Mexico's national oil company, PEMEX, handed over so much of its profits to the government, it could not reinvest in additional exploration and extraction of oil and gas, or in technology to tap into new sources of energy located in deep waters off the Gulf of Mexico. A no-change scenario would have put Mexico in a very difficult situation within a few years: it would have to spend valuable national resources to import oil and slash its federal budget by nearly one-third.

Thus, Mexico's energy reform, in my view, was primarily motivated by revenue maintenance and generation concerns, rather than a conviction that the free market would improve the country's energy future and advance economic development. Many of the contours of the reform

demonstrate this intent. For example, the Mexican government, while reforming some aspects of PEMEX, continues to maintain tight control on the company. In the March 2015 Round Zero oil auction, PEMEX was the only bidder and received over 80% of the oil and gas plays it wished to keep.[3] What PEMEX did not want or could not keep was then fair game for others in subsequent bidding rounds. Second, the terms and conditions of contracts offered to foreign and private investors originally capped revenues, ensuring maximum revenue flows to Mexico's federal government. Companies pushed back. Since some of these caps on profits have been flexibilized. Third, the government has legislated that any contract can be rescinded at any point, even due to purely administrative violations—an undefined term, which will give federal bureaucrats enormous discretionary power over continuing, modifying or ending contracts. Fourth, the government intended to prohibit contract clauses that allow investors to bring contract disputes to international arbitration bodies, preferring to instead resolve disputes in Mexico's courts—which are notoriously deficient and susceptible to corruption. The courts' ability to fairly consider the interests of both investors and the Mexican government is questionable, to say the least. It is not clear yet whether Mexico's government has backed down on this point.

These examples are among many indicating that Mexico's government would have preferred to keep tight control of the energy sector rather than open it to foreign investors. However, circumstances forced the government to opt for reform. The reform, therefore, is a managed opening of the sector, rather than a full market-driven reform. It is likely that Mexico's government will try to maintain the upper hand in the energy sector, rather than allow market forces to determine production, consumption and profits. In my estimation, Mexico's energy reform is more restrictive than that of other countries, and continues to give the government excessive power over the sector. This should be kept closely in mind as Mexico's open energy market becomes an integral part of the North American energy landscape.

The results of Round One, Mexico's oil and gas play bidding process that took place July 15, 2015, were disappointing. Only two out of 14 blocks were sold. This is partly because the geopolitical market conditions of supply and demand are unfavorable to Mexico at this point; but it is also because there is much trepidation in the industry as to how to respond to the Mexican government's intent to retain the upper hand in the sector. This has introduced much uncertainty into the bidding process, and many industry actors have adopted a wait-and-see attitude.

Still, the situation in Mexico is not uncommon. Most countries heavily manage their energy sector, and IOCs have a long history of dealing with governments, even in difficult situations. Even so, Mexico presents unique challenges that must be examined closely. Although the country is not completely unpredictable, its institutions are not always accountable. As I attempt to break down these challenges, I will argue that, insofar as the U.S. is concerned, a much more comprehensive and forceful foreign policy toward our neighbor is required.

Major Threats to Energy Reform

Threats to energy reform in Mexico come from within the country itself. Its unique historical and structural problems might yet derail some of the positive effects of the historic reforms. In my view, three major problems threaten the success of energy reform implementation, and they must be considered as the U.S. examines its foreign policy toward Mexico: 1) Weakness of the rule of law and security issues; 2) Property rights, natural resources and social conflict; and 3) Corruption.

Weakness of the Rule of Law in Mexico and Security

The weakness of the rule of law in Mexico is historical and structural. These weaknesses must be understood in the context of the country's presidential system. During much of Mexico's existence, presidents have been more akin to strongmen than democratic rulers. During the 21st century, Mexico's president was the central figure in the country's government and governance processes. The president dominated all of Mexico's institutions, including the central political party, Congress, state and local governments and the judiciary. The weakness and strength of Mexico's institutions were carefully calibrated to ensure that no one would challenge the central ruler during his six-year term, and that the powerful PRI party would stay in office. In 2000, when Mexico made the leap to a more democratic transition by voting into office an opposition party, most institutions were able to reconstitute themselves; they function relatively well and independently of the weakened executive branch, except the judiciary. The police and judiciary systems in Mexico remain structurally weak. They are ineffective, underfunded and highly susceptible to corruption.

The weakness of the civilian police-justice system in Mexico has emboldened organized crime in the country. The last 10 years have seen an upsurge in criminal violence that has spread to vast swaths of the Mexican territory. Criminals, as we have seen with the recent escape of Joaquín "El Chapo" Guzmán Loera, feel they can corrupt nearly any official and strike at the State almost anywhere at will.

U.S.-Mexico agreements, such as the Mérida Initiative, which have focused primarily on drug trafficking, have done little to overcome the structural weaknesses of the civilian police and justice systems in Mexico. Instead, the effect has been to break up Mexico's organized crime organizations into dozens of smaller, powerful groups that control cities and corridors and that have diversified their criminal activities to include kidnapping for ransom, extortion, human smuggling and trafficking and, of course oil, gas and fuel theft.

This is, in fact, one of the greatest sources of concern for foreign and private investors seeking to enter Mexico's newly opened energy sector: they fear their investments, workforces, equipment and products may eventually be tapped into by organized crime. There is much unease with this situation, and it may have contributed to some companies taking their time to examine Mexico more carefully before going into business there.

In hindsight, U.S. efforts to prod Mexico into fighting hierarchical criminal organizations have also contributed to the fragmentation of these organizations into dozens of smaller criminal gangs and to the diversification of their criminal activities. Such a result can be viewed as a way to eventually send the military back to the barracks and allow local police forces to face down the smaller gangs of criminals. However, this has not happened. The local police forces, some 400,000 officers in the country, are underpaid, underequipped, unprepared, probably undervalued and generally incapable of confronting the well-organized, disciplined and well-armed gangs that dominate cities, towns and corridors throughout the country. This situation makes the police particularly susceptible to corruption. The problem of criminal groups in Mexico is, as a consequence, much more difficult to control.

Property Rights, Natural Resources and Social Conflict

In Mexico, individuals own the use of the land, but do not own the rights to the water or oil beneath it. Two major issues may emerge out of this. One is the fact that foreign companies will have to negotiate with landowners to access natural resources. Considering that 51% of Mexico's land ownership is social—either in the form of *ejidos*[4] or as indigenous lands—this can also mean that many companies will be forced to negotiate not with individual owners, but with entire farmers' groups or indigenous groups over issues such as right-of-way, water availability, use of the land, reparation and remediation. This is a potentially explosive situation that may give rise to social conflict, particularly as landowners resist granting a right-of-way or permanently or temporarily ceding their land for energy projects, as the law mandates. Worse, the law gives landowners 180 days to agree to grant access to minerals under their land, or the State will force them to accept a third-party negotiator. This can be a recipe for social conflict.

There seems to be another conflict in Mexican law that needs further investigation. Whereas energy reform gives energy-related projects priority over the use of natural resources under the theory that it is in the interest of national development, the water law in Mexico states that access to water is a human right and human access to water is a priority over other uses. This is not likely to affect the large oil corporations—many of which will invest in deep waters in the Gulf of Mexico in any event—but it may become relevant once oil and gas prices recover and the shale in northern Mexico, where water is extremely scarce, begins to be developed. In this regard, it is possible that social conflicts over water resources may develop in the future, particularly in northern Mexico, right across the Texas border.

Corruption

So far, the Mexican National Hydrocarbon Commission and other energy authorities in Mexico have done an excellent job of maintaining the process of opening the energy sector in a way that is both transparent and responsive to the concerns of the industry. However, corruption by the political class is another concern in the implementation of energy reform. In fact, President Peña has himself been involved in several corruption scandals that have undermined the legitimacy of

the energy reform as well as of other reforms. As of yet, there is no effective anti-corruption system in Mexico capable of dealing with governors and mayors, many of whom are notoriously corrupt and will ultimately have the ability to make the life of investors in the field very easy or very difficult. Many of them will also be seeking opportunities to use their political power to maneuver themselves into deals as partners with private and foreign investors.

The failure of Round One this month cannot be attributed to a lack of effort on the part of the Mexican federal government to be clear about the terms of business and to respond to the concerns of industry. But this transparency and responsiveness cannot be guaranteed in the long term, or even in the medium term, in a system that suffers from endemic corruption, and where there are hundreds of actors at the federal, state and local level with the ability to affect energy project development throughout the country. Corruption in Mexico has become a lifestyle. Mayors, governors, members of Congress and politicians of all sorts tend to view public service as a way to serve themselves as well as the Mexican people. They have embezzled public funds; used their political power to ensure privileges for themselves, their families and friends; and inappropriately used their public position to engage business interests to enrich themselves. By almost any measure, Mexico ranks among the most corrupt countries in the world.[5] This is one of the most important concerns of the energy industry—that they may be liable under U.S. law for corrupt practices in Mexico. Their concern is justified, as they will eventually have to deal with hundreds of politicians at all levels. Although the energy sector is under federal jurisdiction, the energy projects themselves have a fundamentally local character. They take place in communities across the country under the eye of citizens and politicians everywhere.

This does not mean that the U.S. should let up on enforcing its foreign corrupt practices laws, but rather, that it should become more attuned to the challenges that the industry will face in a country where corruption is wide and tolerated.

Conclusions

To conclude, it is important to note that the failure of Round One this month is an inauspicious sign. Energy reform will move forward, but it will experience more difficulties than expected. The structure of incentives built into contracts, the natural resource conditions, property rights, and the weak rule of law all threaten the smooth implementation of energy reform in Mexico.

Without a comprehensive foreign policy toward Mexico in the energy arena, there is very little the United States will be able to do to help this situation. Until now, Mexico has been dealt with very tentatively, given the country's nationalistic sensibilities. The Peña administration in particular is even more sensitive to American activities in Mexico than the two previous PAN administrations were. But there is hardly any country that has more leverage on Mexico than the United States. Thus, the U.S. government should now reexamine its relationship with Mexico and begin to put together a policy that goes beyond trade, economics and the drug war. Mexico and the U.S. must now engage in policies that emphasize institutional development, democracy-

building measures and an intense campaign to fight corruption, as well as binational human and labor mobility and the creation of binational institutions that work for both nations. Below I outline some basic policy recommendations.

Policy Recommendations

1) *The Mérida Initiative should be replaced with a more comprehensive policy toward Mexico.*

   The Mérida Initiative has not paid off. Although there are some isolated victories, it is now clear that the Mérida Initiative has not had its intended effects. While it has helped break up most of the large criminal organizations that existed in Mexico, it has created a more fragmented and chaotic criminal landscape. There are now anywhere between 60 and 80 criminal organizations, some dedicated to drug trafficking, notably the Sinaloa Cartel, but dozens of them are now dedicated to victimizing Mexican citizens through kidnapping, extortion, robberies and theft. Some of these organizations have special units dedicated to oil, gas and fuel theft. We have also seen some unscrupulous U.S. business owners buy some of that ill-gotten oil from Mexican criminals, notably in Texas. Energy investors, and particularly those that will invest on onshore projects, will necessarily confront some of these organizations. Their equipment, their personnel, and in general their investment will come under fire here and there.

2) *Focus American foreign policy on strengthening Mexico's institutions, particularly the police and judicial systems.*

   Mexico's government has made very little progress in implementing the 2008 Judicial Reform.[6] Although some states have made substantial progress, most of them lag well behind, so the Judicial Reform will likely not be implemented by 2016, as mandated by the law. The United States must now urge Mexico not only to implement Judicial Reform but also to implement a more forceful anti-corruption program that primarily focuses on making the judiciary a truly independent branch of government, with the capability, the resources and the political will to investigate and punish corruption wherever it may be found. Without a strong and independent judiciary capable of investigating political and other corruption, Mexico will not be a reliable partner in achieving a North American energy plan or a broader North American economic bloc.

3) *Aggressively include Mexico's political class in corruption investigations.*

   The United States is the destination of many in Mexico's corrupt political class. They freely move about in the United States; they do business in the United States; they launder their ill-gotten profits in the United States; they send their children to the United States; and they generally use the United States to seek refuge when they face complications in Mexico. Policy toward Mexico must now include a serious effort to

address corruption in Mexico by investigating the country's political class and targeting them with anti-corruption efforts. There should be no access to the United States to anyone accused of malfeasance in Mexico.

4) The U.S. must develop a more comprehensive policy toward Mexico, one that considers labor integration, manufacturing chains, energy swaps in oil and gas, and financial sector integration, along with additional funding targeted to the promotion of institutional reform in Mexico's police and judicial system. Trade between the two countries is a story of success, but we have not been able to use this success to ensure that its dividends quickly spread to other areas, and we have not used that momentum to create truly regional institutions that will help us achieve a fully developed and democratic North America, one that will work for all Mexicans and Americans. Mexico's energy opening is yet another important step, which we must take advantage of to make a final push to create the most prosperous region in the world.

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[1] Kenneth B. Medlock III and Donald Soligo, "The Future of Oil in Mexico: Scenario for Oil Supply, Demand and Net Exports for Mexico," James A. Baker III Institute for Public Policy at Rice University, Houston, Texas, April 29, 2015.

[2] Mexican Republic Decree on the Federal Budget for FY2015. November 13, 2014, http://www.hacienda.gob.mx/INGRESOS/Ingresos_ley/2015/lif_2015.pdf.

[3] See Secretaría de Energía, "Results of Technical Analysis," found at http://www.energia.gob.mx/webSener/rondaeero_Ingles/9600.html.

[4] *Ejidos* are communally owned lands, assigned by the government to farmers and ranchers to manage collectively during the agrarian reform laws of the 20th century. Although legislation in the early 1990s allowed many to sell their land, numerous *ejidos* are still operational.

[5] Mexico is ranked 103/175 by Transparency International, with a score of 35/100. There is little enforcement of anti-corruption laws. See http://www.transparency.org/country#MEX.

[6] Trans-Border Institute, Joan B. Kroc School of Peace Studies, University of San Diego. *Judicial Reform in Mexico: Change and Challenges in the Justice Sector*. 2010.

Mr. DUNCAN. I am sure we will delve into some of that in the question session.

Now I recognize Mr. Farnsworth for 5 minutes.

STATEMENT OF MR. ERIC FARNSWORTH, VICE PRESIDENT, COUNCIL OF THE AMERICAS AND AMERICAS SOCIETY

Mr. FARNSWORTH. Thank you, Mr. Chairman. Good afternoon, Mr. Ranking Member, members of the subcommittee. It is a privilege to have the opportunity to appear before you again, and it is also a privilege to join this important and timely hearing with such distinguished panelists as well. So thank you for the opportunity.

Access to affordable, stable energy supplies has been a driver of strategic U.S. policy on a bipartisan basis for many years. Actions that the three North American governments take to increase regional energy production and integration contribute meaningfully to support and expand our own competitiveness in a manner consistent with U.S. interests.

Mexico's decision to open its energy markets and link them more closely to its North American neighbors is therefore a historic and meaningful action for Mexico itself, as well as a strategically important step for the entire community of North America. It would be difficult, in my opinion, to overestimate the importance of Mexico's energy reforms once they are fully implemented. They are potentially transformational.

The Mexican energy sector is historically quite sensitive politically; it was closed to foreign investors for over 57 years. The sector would benefit from additional technology, management expertise, and capital to address production declines and high costs—we have already heard about that—which are a drag on competitiveness and economic performance.

Since 2013, the Pena Nieto administration has been working to address this, passing and now beginning to implement legislation allowing for private participation in both the oil and gas and also power generation sectors.

Since the launch of the reform effort, of course, the price of crude has fallen approximately 50 percent, which impacts investment decisions. Investors become more selective, and the quality of investment opportunities becomes paramount.

There have also been recent setbacks regarding the rule of law in Mexico, notably the mid-July escape from prison of Joaquin "El Chapo" Guzman. While not directly related to the energy sector, this does play into a narrative concerning the risks of doing business in Mexico, with a particular focus on corruption and the rule of law.

Some of these issues may have been indeed in play on July 15 for Mexico's first round of investor bidding, in which only 2 of 14 blocks offered to investors were awarded. And, again, we have heard about that. But in my view, this isn't the whole story.

The first bidding round featured marginal shallow-water blocks with prices arbitrarily set by the government. Future auctions will feature more attractive deep-water and onshore unconventional shale gas blocks. Lessens learned from the first auction on pricing and other matters will be applied to later rounds.

As well, on a comparative basis globally, additional investment blocks are larger and potentially more significant in Mexico than those that may be available elsewhere in the world. So there are some real advantages coming up.

Nonetheless, while most attention has been on the oil and gas sector, power generation is also being liberalized, and this may prove to be an even bigger story because the cost of electricity in Mexico is well above global rates.

While previously only the Federal Electricity Commission, or CFE, was allowed to generate electricity, the sector is now opening to private investors. This will support overall needs. Energy infrastructure must be upgraded, including pipelines, rail, waterways, and transmission lines, among others. And CFE recently announced that it would tender projects for close to $10 billion. As investment increases and prices of electricity go down, Mexico will become more competitive as resources are directed toward more efficient and productive uses.

Power generation reforms also directly impact broader issues, in particular the environment and global climate change. Updating infrastructure allows for more efficient power generation utilizing cleaner and more renewable fuel inputs. Conservation is certainly the cleanest and most cost-effective fuel available, but beyond this, Mexico's reforms promote renewable energy development as well and investors have shown a keen interest in accessing this market, especially wind, solar, and geothermal.

More broadly, the success of Mexico's energy reforms is important for the United States and North America, not just Mexico. The North American production platform is already integrating content produced across borders. Some 40 percent of the content of goods exported to the United States from Mexico is originally U.S. content. From Canada, the figure is 25 percent. From China, the equivalent number is merely 4 percent.

Actions which contribute to Mexican competitiveness can therefore help to increase our own economic wellbeing. In particular, investment restrictions to date mean that natural gas is more expensive in Mexico than in the United States, increasing production costs in sectors that use gas as a feed stock, such as chemicals, as well as in all sectors that draw from the power grid—in other words, everybody.

This reduces manufacturing competitiveness. Gas imports from the United States have helped, although inbound pipelines are functioning already at capacity. More pipelines could be constructed, but a better solution would be to develop Mexico's own energy resources, which the reforms that we are talking about today are intended to do. Substituting cleaner fuel, such as gas for diesel, would also support national and regional environmental targets.

Once fully implemented, prices would fall and the North American manufacturing platform would become much more competitive vis-à-vis others, including China and Europe.

In support of Mexico's reforms, therefore, the United States has an important role to play. In the first instance—we have already heard this—I would support as well that Congress can strengthen U.S.-Mexico energy relations by lifting crude oil export restrictions toward a proposed swap between Mexico and the United States,

which is, by the way, a procedure that is already allowed with Canada.

The bottom line, however, is that regional energy integration broadly must be a priority, not an afterthought, underlining an intentional drive for economic expansion. Within this construct, regulatory alignment is critical. Infrastructure must be upgraded, investment climate issues, including an emphasis on workforce development, should be addressed, and joint research and development projects expeditiously pursued.

Finally, in the runup to the Paris meetings in December, a regional approach to climate change issues would be useful and should be pursued as a means to engage the global dialogue. More can be done. The key to this overall agenda, however, is the successful implementation of Mexico's liberalizing reforms. It is manifestly in our own interest that the Mexican people succeed. As a result, I believe that we should assist the process where appropriate and wherever we can.

I look forward to your questions. Thank you very much.

[The prepared statement of Mr. Farnsworth follows:]

PURSUING NORTH AMERICAN ENERGY INDEPENDENCE: MEXICO'S ENERGY REFORMS

HEARING BEFORE THE U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON FOREIGN AFFAIRS
SUBCOMMITTEE ON THE WESTERN HEMISPHERE
JULY 23, 2015

ERIC FARNSWORTH
VICE PRESIDENT
COUNCIL OF THE AMERICAS

*** As Prepared for Delivery ***

Good afternoon, Mr. Chairman, Mr. Ranking Member, and Members. It is a privilege to appear before you again. I am pleased to offer testimony on North American energy independence and the importance of Mexico's ongoing reform efforts. Thank you for the opportunity to join this timely and important hearing.

As I suggested during oversight testimony in February before this Subcommittee, our most immediate neighbors have the greatest impact on our strategic interests. It is significant and consequential that we have a northern neighbor, Canada, which is both our top trade partner and top energy supplier, and which is stalwart in working with us to address the toughest global issues. Our southern neighbor, Mexico, is our second largest export market and also third largest energy supplier. Together, the three nations of North America are quickly becoming a fully integrated production platform, with tightly-knit supply chains and ever-deepening commercial ties. As China and others have emerged to challenge the pre-existing global economic order, the ties that bind us within North America have created economic efficiencies, built competitiveness, and directly contributed to the economic growth that our citizens both desire and deserve.

Access to affordable, stable energy supplies has been a fundamental driver of strategic U.S. policy on a bipartisan basis at least since the 1930's. Actions that the three North American governments take to increase regional energy integration contribute meaningfully to support and expand our competitiveness in a manner consistent with U.S. interests. Mexico's decision to open its energy markets and link them more closely to its North American neighbors is therefore a historic and meaningful action for Mexico itself as well as a strategically important step for the entire community of North America.

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Mexico's Energy Reforms are Transformational

It would be difficult to overestimate the importance of Mexico's potentially transformational energy reforms, once fully implemented. The Mexican energy sector is historically quite sensitive politically. It was closed to foreign investors for over 75 years. The sector would benefit from additional technology, management expertise, and capital to address production declines and high costs, which are a drag on competitiveness and economic performance.

Since 2013, the Peña Nieto administration has been working to address this, passing and now beginning to implement legislation allowing for private participation in both the oil and gas and also power generation sectors. At the same time, the government has expressed awareness of the need for full transparency in the reform and bidding process in order to build broad public faith that the final outcome will be fair and free from corruption and sweetheart dealing. This is a critical point, upon which the sustainability of the entire reform effort ultimately depends.

Since the beginning of the reform effort, the price of crude has fallen approximately 50 percent, which impacts investment decisions particularly in sectors as capital intensive as energy. Investors become more selective and the quality of investment opportunities becomes paramount. There have also been recent setbacks regarding the rule of law in Mexico, notably the mid-July escape from prison of Joaquín "El Chapo" Guzmán. While not directly related to the energy sector, this does play into a narrative concerning the risks of doing business in Mexico with a particular focus on corruption and the rule of law.

Taken together, these data points have led some observers to turn more bearish on Mexico's energy prospects. Some of these issues may have been in play on July 15 for Mexico's first round of investor bidding, in which only two of 14 blocks offered to investors were awarded. But I would submit that this focus misses the bigger picture.

Investment Decisions for the Longer Run

The first bidding round featured marginal shallow water blocks, with prices arbitrarily set by the government. Future auctions will feature more attractive deep water and onshore unconventional shale oil and gas blocks. Lessons learned from the first auction on pricing and other matters will also be applied to later rounds. As well, on a comparative basis globally, additional investment blocks are larger and potentially more significant than those available elsewhere in the world.

Investor interest in the deep water reservoirs of the Gulf of Mexico and unconventional shale oil and gas in the Eagle Ford shale in the Burgos Basin is high. Mexico's shale reserves are the sixth largest in the world, according to the U.S. Energy Information Administration, overlapping with shale resources in southern Texas. Just as the shale revolution increased U.S. oil production by more than 55 percent, the application of new technology, capital, and best management practices could catalyze a similar jump in oil and gas production in Mexico.

Temporary set-backs aside, Mexico's energy reform efforts are a broader play which will continue to attract interest.

Power Generation and the Environment

While most attention has been on the oil and gas sector, power generation is also being liberalized, and this may prove to be an even bigger story because the cost of electricity in Mexico is well above global rates. This raises overall production costs making Mexico less attractive in manufacturing and other activities, while also reducing disposable income available to consumers who might otherwise reallocate their spending. While previously only the Federal Electricity Commission (CFE) was allowed to generate electricity, the sector is now opening to private investors. Overall, energy infrastructure must be upgraded, including pipelines, rail, waterways, and transmission lines, among others, and CFE recently announced that it would tender projects for close to $10 billion. As investment increases and prices go down, Mexico will become more competitive as resources are directed toward more efficient and productive uses.

Power generation reforms also directly impact broader issues, in particular the environment and global climate change. Updating infrastructure allows for more efficient power generation, utilizing cleaner and more renewable fuel inputs. Of course, conservation is the cleanest and most cost-effective fuel available, and should be actively promoted in addition to efficiencies. Beyond this, Mexico's reforms promote renewable energy development, and investors have shown a keen interest in accessing this market, especially wind, solar, and geothermal. Regulations are sound and provide a clear framework for investment so long as targets are flexible. As well, clean energy targets can contribute to overall energy targets, both on a North American and a sub-regional basis.

Mexico's Reforms Positively Impact North America

The success of Mexico's energy reforms is important for the United States and for North America broadly. The North American production platform is already integrating content produced across borders; some 40 percent of the content of goods exported to the United States from Mexico is originally U.S. content. From Canada, the figure is 25 percent. From China, it is merely four percent.

Actions which contribute to Mexican competitiveness can therefore help to increase our own economic well-being. In particular, investment restrictions to date mean that natural gas in Mexico is more expensive than in the United States, increasing production costs in sectors that use gas as a feedstock such as chemicals as well as in all sectors that draw from the power grid. This reduces manufacturing competitiveness. Gas imports from the United States have helped, although inbound pipelines are functioning at capacity. More could be constructed, but a better solution would be to develop Mexico's own energy resources, which reforms are intended to do. Substituting cleaner fuels such as gas for diesel would also support national and regional environmental targets. Once fully implemented, prices would fall and the North American manufacturing platform would become more competitive vis-à-vis global production centers such as China and Europe.

The U.S. Role

In support of Mexico's reforms, the United States has an important role to play. In the first instance, Congress could strengthen U.S.-Mexico energy relations by lifting crude oil export restrictions toward a proposed swap between Mexico and the United States, a procedure already allowed with Canada. Mexico would supply heavy crude in exchange for U.S. light sweet crude to best take advantage of refining capacity. Not only would the swap be a welcome move toward dropping the U.S. crude oil export ban, but, symbolically, would provide Mexico similar treatment as our other NAFTA partner.

More broadly, regional energy integration must be a priority not an afterthought, underlining an intentional drive for economic expansion. Within this construct, regulatory alignment is critical, infrastructure must be upgraded, investment climate issues including an emphasis on workforce development should be addressed, and joint research and development projects expeditiously pursued.

Finally, in the run up to the Paris meetings in December, a regional approach to climate change issues would be useful and should be pursued as a means to engage the global dialogue. In March, the United States and Mexico released a joint statement on climate cooperation, launching a clean energy and climate task force. In May, North America's energy ministers established a working group seeking to harmonize relevant regulations.

These are solid steps. More can be done. The key to this overall agenda is the successful implementation of Mexico's liberalizing reforms. It is manifestly in our own interests that the Mexican people succeed. We should assist the process where appropriate and wherever we can.

I look forward to your questions.

Mr. DUNCAN. I want to thank the panelists. Great testimony. Very informative.

In looking at the Financial Times blog, it says that in the press conference following the 15 July lease sale auction,

> "In the press conference after the ceremony, government officials blamed the results on the current low price of oil and on the fact that many companies were 'learning the process.' But it was clear that officials were deeply disheartened by the outcome."

So I am going to ask each one of you, how would you interpret the results of the first public bidding event? You all touched on that again, but just elaborate a little bit. I will start with Ambassador Pascual.

Mr. PASCUAL. Chairman, one of the critical issues is for Mexico to put its offerings on the international market on a competitive basis. The fields that they were offering were relatively small. The contract length and period of time was relatively limited, 4 years plus 2 years. Companies had given them some input that they needed a longer period of time.

There are questions about the fiscal terms. And one of the challenges for Mexico is that historically they have operated on the basis of Pemex estimates of production costs, which generally have been lower than international perceptions of what costs would be. When you begin with that as a basis and you put a tax structure on top of that and you get the base wrong, then you have a real impact on the fiscal terms.

And so in the end, when companies had to come back and make an assessment of what was competitive in a Mexican environment, the relatively small fields and shallow-water exploration didn't make the kind of threshold for them to be able to bid in the current kind of price environment.

This is an issue that we have begun discussing with the Mexican Government. I think they are aware of many of the factors. They are looking carefully at what the lessons are that they could apply to the future, including the contract terms, the field sizes, the fiscal competitiveness.

It is not a situation that can't be reversed. It can be dealt with. But it is an issue that points to one very fundamental point, that if you are going to succeed in this current environment, that investors are going to have to find a return on investment that is comparable or competitive with other parts of the world at a point in time when prices are low and capital expenditures are being cut.

Mr. DUNCAN. So what I am hearing you say—and I will follow up with something Eric said as well—so the Mexican Government really may have been disappointed in the price, but they didn't think about the factors that a private company would factor into their bid on what their production costs would be and exploration costs. And on the other side is, these weren't real attractive pieces of the puzzle. You have small areas and onshore, shallow water, onshore.

But as Eric was saying, there are some more attractive leases and properties in the future coming down the pipe. So that provides me with optimism. And that kind of sums it up.

Dr. Tunstall, I will give you a chance.

Mr. TUNSTALL. Just briefly, I agree with the Ambassador's remarks. I have to say, though, that this first round was very much of a disappointment. Half of the blocks didn't even receive a bid at all.

Now, I think part of the problem is that the Mexican Government is stuck in the mindset when the legislation was passed, oil was selling for $100 a barrel. It is not anymore. And the cost structures associated with development in Mexico are even more critical than ever because the energy companies are going to be reluctant to make an investment if they don't feel good about their ability to make money. And they have really got to push their costs down at $50 a barrel to make that happen.

Mr. DUNCAN. Right.

Doctor.

Mr. PAYAN. Yeah. I think this points to the—although I agree with those remarks in terms of the financial structure of incentives in this particular bidding—however, I think it shows, again, the argument that I made that the Mexican Government intends to carefully manage this to its advantage. It wants to limit profits, it wants to carefully manage the opening, it wants to direct investment in certain ways, and I think it will prove true in the next rounds as well. They are going to try to very carefully manage that to improve and increase their revenue.

Mr. DUNCAN. Right.

Mr. Farnsworth.

Mr. FARNSWORTH. Well, very quickly, just to add a couple things. If you are going to have a failure, it is best to have it on marginal properties that are relatively small and not the most attractive ones in the deep water later on. So some of this is kind of working out the kinks in a process. And I think there is a lot of learning that has to occur and is occurring already, number one.

Number two, I think, according to all observers, this was a process that was run openly, transparently, fairly. It was done in a way that it was intended to do. So that is a real success because it is the first time, somebody was mentioning, since 1938. So there is not a lot of track record here. That is an important point, I believe.

And I think the final thing that I would say is that as the auctions are going forward some of the terms could very well be adjusted. And this is a global marketplace, and companies that they are dealing with are global operators, and there is a constant dialogue back and forth.

So, again, it is a bit of a learning process. And to the extent that some of these fields do come online and do begin to produce and do begin to return benefits to the Mexican people, that will then play into the idea too that there are real benefits to this in terms of the deep water, in terms of some of the other plays. Those are longer-dispersing fields, and therefore the benefits to the Mexican people wouldn't accrue until later down the road, several years.

And so it may have been a tactical decision to try to have the success, even knowing that not all of the fields would be purchased in the way that they wanted them to be. But nonetheless, they had the opportunity to bring some of those benefits back to the Mexican

people in a relatively quick timeframe, compared to what some of the other fields might yield.

Mr. DUNCAN. Thank you all.

I am out of time. I will say this. Before Congress, I was an auctioneer and that was my business, and maybe we will go down to Mexico and teach them a little bit about the auction business.

With that, I will turn to the ranking member.

Mr. SIRES. I don't know about that.

You know, as I sit here and listen to you, all of your comments, I was struck by what you said, Dr. Payan. I mean, you worry about security, you worry about the government, you worry about corruption, you worry about the courts. Why would I invest, you know, if the situation is so bad? And if I have a dispute, I have got to go to the courts in Mexico to resolve it? I mean, to me that doesn't sound very attractive, especially when there is such a glut of oil throughout the world and capital investment, it is not there.

So I think that by all accounts this July 15 bidding was basically a failure. I mean, they put out some oil fields that weren't very good, but nobody seemed to be really interested. I can't imagine if you are going to put a real productive piece of property out there for people to invest that friends of the government, if there is so much corruption, are not going to suck it up.

So if I am looking from the outside in, I would be very wary. I would wait 10, 15 years to see where this whole thing goes, especially now that there is such a glut of oil and prices are low basically. Maybe my observation is wrong, but——

Mr. PAYAN. I personally think that there is a lot of money to be made in Mexico. Obviously, this is a historic opening. There will be opportunities there. Mexico needs both capital and the technology to develop, and so there will be money to go around for everybody. I think in the long term this will happen. But I do think that the Mexican Government has tried to cap the profits on top of a very difficult situation.

And we also have to think about different players in the sector. The IOCs who will be operating in the Gulf will have a lot less trouble in the next rounds. They will probably be very successful. They don't have to deal with the situation on the ground.

The worry is that if the shale, the more unconventional investors eventually roll into Mexico, they are going to face a more difficult situation on these onshore projects. They are going to have to face a country where 51 percent of the property is still communally owned, either indigenous lands or farmers and ranchers that own the land communally. They are going to face organized crime groups that are not under the control of the government. They are going to face a government that is going to essentially want to hold them to the Mexican court system.

So those definitely will stay away unless the terms are really very, very good, commensurate with the risk. So it depends on the kinds of companies and the kinds of onshore, offshore types of investments. But it is a worrisome scenario.

Mr. SIRES. Ambassador, am I wrong?

Mr. PASCUAL. I think, Congressman, one of the points that you are making is critically important, that for Mexico to succeed it has to understand what it looks like from the outside looking in. And

in that sense, one has to ask, what looks competitive? What does my business climate look like? What does the security environment look like?

I think it is also important to put it in the context that Mexico is one of the G20 countries. It is a member of the OECD. It is part of North America. It has a market economy. It has a democratic system. It is next to one of the largest consumer markets in the world.

And when you look at the willingness of energy companies to invest in places like Iraq and Nigeria, this is a night-and-day difference. There is no other country in the world that is offering new hydrocarbon resources that has the fundamental positive aspects that Mexico has to put on the table. So if it can create the right kind of business and security climate around it, it can succeed.

There are challenges. There are important issues to work through. But I think that the foundation that is there is one that we can build on, that Mexico can build on, and that it is in our self-interest. Because if you look at it from the perspective, and it really is at the foundation of this hearing, if you ask the question, what does North America get out of this, what are the security and the strategic stakes, If you think about the difference of having a foundation for global energy security coming out of a base of North America with Mexico as part of that, it is a question of fundamental strategic importance.

So in that sense, I think it just reinforces the importance of maintaining that perspective of what can be done and working with Mexico to act on the very concrete and specific measures that it can take to actually make it attractive to come and invest.

Mr. SIRES. Doctor.

Mr. TUNSTALL. I think it is important to note that the landscape in Mexico is different than the U.S. And one thing that is often not well understood is that the U.S. is a little unique in terms of landownership rights. This is one of the few, perhaps not the only, but very few countries in the world allow private individuals to own the mineral rights as well as the surface rights.

So the communal farms, the ejidos that were alluded to earlier, are definitely going to be an issue. The energy companies and the government are going to have to be sure that they provide incentives for the landowners for the onshore development so that they are receptive to the prospect of oil exploration.

But I think it is also an opportunity. As I said, there are a lot of infrastructure issues in northern Mexico and northeast Mexico where the shale is, and if this can be used much as the way it has been in south Texas as an opportunity to provide a foundation of various types of infrastructure to support not only the oil and gas industry but other types of economic development, then it could transform the country significantly. And the upside, the prize on the other side, if you will, is very substantial.

Mr. SIRES. Mr. Farnsworth.

Mr. FARNSWORTH. Well, much has already been said, so I won't reprise that. I would simply say that the companies will have to make their own individual determinations.

But the positive I think that we can take out of this is that the Mexican Government understands this is the crown jewel of their

reform effort. They know that this has to go well. They know that it has to succeed.

They have qualified, talented managers in the leadership role. They are aware of the outside perceptions in terms of the previous attempts. Telmex was mentioned, some of these other attempts in previous governments. But they are aware of the importance of this, and I think they are dedicated to trying to make sure that it succeeds.

The question is, do they have the capacity then to build from what was clearly a learning experience in this first round to take that and integrate it into future rounds? And that just remains to be seen. And based on what actually occurs, then, as I mentioned, companies will make their own individual determinations if they want to participate.

Mr. SIRES. Thank you very much.

Thank you, Mr. Chairman.

Mr. DUNCAN. You are welcome.

The chair will now go to the chairman of the Homeland Security Committee, Mr. McCaul from Texas.

Mr. MCCAUL. I thank the chairman for holding this hearing. I live in Texas. Very important issue.

Dr. Payan, good to see you again.

And, Mr. Farnsworth, I think the last time I saw you was at the IPG.

I am also the chair of U.S.-Mexico Interparliamentary Group, so this was kind of one of the central issues of the discussion between the Mexican Congress and the United States Congress. We also invited the Canadians on the third day to talk about a northern American energy alliance to get off of this Middle East dependency, which drives our foreign policy in a bad way.

And there is a lot of optimism. And, quite frankly, the Pemex reform itself, I think, was one of the biggest, most monumental political achievements I have seen in recent times in Mexico, to be able to achieve that. And so there was great optimism. They are bringing all three parties together, although at the last minute the PRD had some dissension. But we had great optimism.

Then the price of oil kind of dropped. I had Chevron in my district lay off employees just today, I found out. And, I guess, there are multiple factors here, but I think, as all the witnesses have talked about, Mexico is sitting on a major natural resource, both offshore and onshore.

But, Dr. Payan, I think as you mentioned, I think with respect—and the Ambassador made a good point—they are not looking outside in. How do the outside energy companies view this from a profit margin standpoint?

And given the way they have implemented this, it sounds like, with more uncertainty, not certainty, given the corruption that you have talked about, Dr. Payan, which we know has always been an issue in Mexico, and many other countries for that matter, I would rather see us develop resources in Mexico than in Yemen where it is a lot more hostile with the terrorists, with the Houthis and the AQAP.

But I think the rule of law, Tony Garza wrote a good piece on this, Ambassador Garza, the other day. We got El Chapo Guzman

escaping out of prison and that doesn't comfort companies as well. But I will say, these energy companies know how to do business in pretty rough spots, Algeria, Yemen, and others. So it can be done.

Frankly, I knew that northern Mexico would be more difficult on land because that is where the drug cartels are, and we talked about this, but honestly, I really thought the offshore would be kind of easy, low-hanging fruit. And what we saw were that it has got the six largest offshore reserves in the world, and yet just 2 of the 14 blocks even received bids.

What would be your recommendation to, when we meet with the Mexican Congress, as to what they need to be doing a little differently to change that dynamic? Because that number, I figured the shale—and Dr. Tunstall, you know that we have been blessed in Texas with the amount of shale discovery, but with the price dropping that has been an issue. But what advice would you give them to turn particularly the offshore one around from just receiving 2 of the 14 blocks receiving bids?

Maybe I will just go through each of the witnesses.

Mr. PASCUAL. Congressman, I was in the 2010 parliamentary exchange with Mexico, and at that point in time the word "energy" couldn't have been mentioned. And the fact that we are at a point in time when so much has changed, legally, constitutionally in Mexico and creating the foundation for that, I think sometimes it is important to recognize how quickly this has happened in a price environment that has been harsher and more intense than anybody anywhere in the world could have imagined beforehand. And I think that is just a key factor to keep in mind.

And so when talking with Mexican parliamentarians, I do think it is a critical issue to keep bringing back to the table, as Congressman Sires said. You have to understand what the global context and environment is and what does it look like to the rest of the world. And so reinforcing that point, I think, is absolutely key because the global market has become a lot more challenging.

The second thing I think that is important is to recognize that selling assets at a competitive basis internationally is not giving away a national resource. It is actually building the national resource. There is still a latent concern that that national patrimony will be given away.

And what needs to be factored into the equation, and it builds on to what Dr. Payan said, is that through that investment you are creating and expanding an asset. You are creating the ability to produce something which is going to create economic growth and which you are going to be able to export.

And so in this context, we actually have the opportunity to work together. American companies, Mexican companies, other international players, but financial institutions as well. And so how do we work together to create the environment that is a win-win for Mexico, the United States, and the international community?

And in keeping the Mexican Congress on that higher plane, recognizing that they are doing something which is good for Mexico, the Mexican people, and not giving away Mexican assets is going to give the government the kind of space they need to be able to look strategically and tactically at these issues and make some of

the kind of surgical changes that are necessary to improve the competitive bid terms.

Mr. MCCAUL. Right. And I am concerned if this is viewed as a failure on the part of the Mexican people, that there are parties, and I won't name, we all know which party, will exploit that for political purposes and then reverse the course of all the gains that they have made, I think, to go in the right direction.

But, Dr. Tunstall.

Mr. TUNSTALL. And it is important to note that while the legislation that was passed and the secondary laws that have been approved was a significant undertaking in and of itself, the real legwork is going to occur in the implementation. And so I would say that in a lot of ways the ultimate success of energy reform in Mexico is by no means assured, and implementation will be key.

But just the briefest possible response to what they need to do to make these auctions a success is to make the terms more attractive. And they clearly were not attractive to the energy companies, and that is going to have to change. And hopefully that mindset can be changed in Mexico with the key officials that make those decisions.

Mr. MCCAUL. Thank you.

Dr. Payan.

Mr. PAYAN. Thank you, Congressman McCaul. It is a pleasure to see you again.

Let me just say something that I think has to be recommended to the Mexican Legislature that I think it is important to consider. Driving this vehicle of energy reform is the Treasury Department in Mexico. They determine a lot of the terms and conditions of the contracts and the profit and the capping of the profits. They need to step away. The law needs to be changed so that it is the technicians, CNH, the Hydrocarbons Commission, that makes the decisions.

Another particular seat is occupied by the Secretary of Energy. I don't think the Secretary of Energy has any business in doing this. They have to plan and think about the future of the energy in the country.

But to me the fact that the number one actor on this whole scenario is the Treasury Department, specifically Mr. Videgaray and his shop, it means that it is all about revenue. It is all about the Mexican Government trying to get the most out of these companies, get them to invest, and get the most out of it and cap what they can do. They need to let the market work. They need to really, truly change the entire structure of the agencies that are leading this process.

And I want to reiterate something you said because I think it is really very important. They also need to legislate property rights into this. They essentially ran over landowners. In Mexico, I know Article 27 in the Constitution clearly says that you own the use of the land, but you are not really the owner of the land and certainly not the owner of the minerals in the land. And there is a certain amount of profits from the bottom line capped for landowners, and they will be forced to negotiate. And if they don't negotiate with energy companies, landowners will be forced to cede the land in servitude.

Well, I think this is inappropriate. They need to really, truly respect landownership and the rights of these owners, and they need to compensate them duly for ceding their land, selling it, or for participating in the particular projects. They need to give them priority.

If energy reform fails—and Mexico has not been the most successful country when it comes to privatization because it has a history of monopolies after privatization. And this will be an opportunity, a political opportunity for that 33 percent of Mexicans who are very angry about this. And in the plurality system in Mexico, 33 percent is enough to win an election. And we know that there are political parties that can come together and could potentially win an election in 2018, and then there will be a lot of uncertainty, even for those contracts that will have already been concluded.

Mr. MCCAUL. That is my concern as well. I have met with some of those parties in my office and you can already see them ginning up this argument.

May I ask Mr. Farnsworth as well?

Mr. FARNSWORTH. Just very quickly. And first of all, let me thank you for your leadership, Mr. Chairman, on these issues, and they are making a meaningful contribution.

You know, nothing succeeds in my view like success. And working together, the two legislatures, just like the two governments, we are feeling each other out a little bit, we are learning each other in terms of how each party does their business, and I think that is appropriate.

But I think there are ways to collaborate, for example, on joint research and development projects toward common goals that will benefit the North American community. And by the way, let's bring Canada into this as well. Canada has great expertise on a number of these issues.

Let's work together, as mentioned already by one of the panelists, in terms of Central America, the export of natural gas, and in the Caribbean Basin where the energy resources are generally not very clean, they are highly expensive, and in many of the countries are actually dependent on countries that aren't favorable toward the United States. So the energy diplomacy angle could be an area of cooperation as well.

We could think in terms of joint recognition of licenses, for example, welders. I mean, welding is a skill that is transferrable. You can be licensed in Mexico, but you can't practice in the United States. Why does that matter? It matters because in an industry as integrated as energy you have to be able to deploy your resources in a way that is most effective in terms of developing the business and the industry.

So these are some things that maybe aren't highly political necessarily, but they are important, and they help develop a growing consciousness on a bilateral and trilateral agenda.

Mr. MCCAUL. Good recommendations.

Thank you, Mr. Chairman.

Mr. DUNCAN. When your chairman on another committee needs a little more time, you kind of let him have that and ask him to remember that down the road.

Mr. Yoho from Florida.

Mr. YOHO. I wasn't going to say anything about that.

I appreciate you all being here, and you guys covered pretty much all my questions.

Dr. Payan, you were talking about the drug cartels, the corruption and all that. And I don't want to beat a dead horse, but I am a veterinarian so I probably have more right to than you guys.

Where would you start, if you were going to counsel the Mexican Government, if they came to you and said, "What would you do? What would you tell us we need to fix first? Do we need to go after the rule of law, property rights, things like that, go after the corruption or go after the drug cartel?" What would you say would be the most important thing to have that perception going out to a company that wants to invest into Mexico, into the energy market.

Mr. PAYAN. Thank you, Mr. Yoho. I am going to answer your question and direct my comments also to Congressman McCaul, because he and I have talked about this before, both in Houston and here in Washington.

Look, the rule of law is very weak in Mexico. This is a major problem. And I think that the Merida Initiative, which focused almost exclusively on fighting the cartels and strengthening the police, arming the police—a lot of it was in terms of—was granted to Mexico to arm the military and the police—has worked to some extent, but then it had the consequence of polarizing organized crime in Mexico, and you have a much more chaotic and difficult landscape.

Mr. YOHO. About 60 to 80 groups, you were saying?

Mr. PAYAN. Sixty to 80 groups operating throughout the country in very difficult conditions, and you don't know who is who, who is allied with whom, and who is doing what.

And the corruption of the police in Mexico seems to have been exacerbated, even worse now than it used to be, because the large cartels used to corrupt specific police forces that they needed. You now have a lot of different groups corrupting different bodies.

And so I think the Merida Initiative needs to be expanded, and Mexico needs to be pushed into judicial reform, to finish implementing judicial reform. I don't think it will be ready by 2016, as they promised. It needs to be pushed in terms of cleaning out the election process. I think the elections in Mexico are not fair and are not even. I would not think that Mexico is a democracy, a full developed democracy in that sense.

So we need to include those efforts in any future negotiations with Mexico, and of course institutional strengthening. So we need to pay attention to the police system, the judiciary system.

And then get the military off the streets. The latest reports of the military in Mexico firing on civilians in the State of Mexico, in the State of Michoacan are not good. And the military does not want to be held accountable, and Mr. Pena has essentially defended the military, even as they fire against civilians.

This is not looking very good, and it brings a lot of uncertainty. I think it is time to engage Mexico on a broader dialogue about its institutions' corruption.

And one more thing to finish. A lot of governors and mayors in Mexico are extremely corrupt and are waiting for the opportunity to take advantage of this opening to enrich themselves by creating

partnerships. Unfortunately, we contribute to that because the United States becomes the place where many of these corrupt politicians launder money, they buy apartments in cities, they invest in the United States, they keep their money in bank accounts as much as the bad guys.

And so I think that we need to engage the financial system to deprive both the bad guys, but also corrupt politicians and deny them access to the United States and deny them access to the American financial system. We need to get into that.

Mr. YOHO. I appreciate that.

Dr. Tunstall, do you think it would be possible, if we made a consortium of sorts between Mexico, the U.S., and Canada, that we could have a strong enough force that we could stabilize oil price outside of the Middle East with the production that we could produce?

Mr. TUNSTALL. Well, the question I often get asked is—well, first people often ask, will all of the shale oil production? Because we have gone from producing 5 million barrels a day in the U.S. to north of 9 million barrels per day. And they ask about U.S. energy independence. And the reality is we consume, what, 18 million barrels per pay?

Mr. YOHO. Eighteen to 20.

Mr. TUNSTALL. So the United States alone can't produce enough oil to service its own needs, but if you factor in Mexico and Canada—and Canada, by the way, has the third-largest oil reserves in the world, 175 billion barrels, second only to Saudi Arabia and Venezuela, I believe.

So the three together, which is where the Keystone XL comes into play, I think could constitute certainly independence. Now, as far as controlling the price, that is kind of a different. I mean, oil is one of the few commodities any of us or anyone presumes to be able to control the price of.

Mr. YOHO. Well, not so much control the price, but stabilize the price; and not so much energy independent, but energy security for this Nation or for the North American region, so that we are not beholden to a Middle Eastern, the exports coming in and the spikes that we had before.

And if we could come together and had that consortium, that would help Mexico, I would think, project. Because what I see, it looks like short-term projection down there. We are going to open up these leases and hope for the best. And you have got round one that was a disaster, it sounds like. But if we say we have got a 15-, 20-year plan and this is what we are going to do, these reforms are going in.

And that is why I asked you, reform one, two, three, four, and they are on a timeline, and we are projecting out 50 years, it would bring stability to that. And then it would tell the rest of the world these guys are working together and they are going to bring a stable supply of oil to the world that is going to bring stability and more security to freedom-loving countries like ours.

Mr. TUNSTALL. I think that is a real prospect.

And another twist on the shale development that isn't necessarily understood yet at this point is the fact that it is a new technology. These unconventional techniques are still in many

ways in their infancy. They haven't applied Big Data, logistical techniques, other seismic imaging. There is a whole host of things that have yet to be sort of perfected, if you will.

There is one school of thought that suggests that in the next few years shale development in the U.S. Will get so cost competitive that we might actually be able to compete head on with Saudi Arabia in terms of cost per barrel to bring a barrel of oil out of the ground.

So there are a lot of things that are underway that bode well for that scenario.

Mr. YOHO. We are hoping to create the demand, because we are going to introduce a Caribbean crude export ban lift just for the Caribbean Basin and Mexico for the exports of petroleum products and increase that demand so it will increase more people hoping, wanting to explore and develop.

Mr. Chairman, I yield back, and I appreciate it. Thank you.

Mr. DUNCAN. You saw the conversation up here. They are getting ready to call votes any second now. So I am going to go ahead and wrap up. I have some more questions. We may submit those in writing.

Your testimony covered a lot of what the questions I had were. So I want to thank you for your valuable testimony.

I heard today words like opportunity and optimism, and I think that sums up what I see happening in Mexico. There is a heck of a lot of opportunity. Mexico can get this right. Private investment can get involved. We can have rule of law that secures the investment.

I talked earlier about North American energy independence, but I honestly like to think in much broader terms of hemispheric energy independence and Mexico playing a big part, Venezuela oil coming online, U.S., Canada, Mexico, U.S. gas. If you think about providing Central America with natural gas, maybe through Panama, but Venezuelan and Mexican oil and U.S. Oil providing the needs for Colombia, Paraguay, Chile, and really all throughout the region, opportunity gets to be a much bigger word.

So I want to thank the gentlemen. I look forward to working with you as we move forward to pursue this. I want to thank the ranking member.

And with that, we will stand adjourned.

[Whereupon, at 3:37 p.m., the committee was adjourned.]

APPENDIX

Material Submitted for the Record

SUBCOMMITTEE HEARING NOTICE
COMMITTEE ON FOREIGN AFFAIRS
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515-6128

Subcommittee on the Western Hemisphere
Jeff Duncan (R-SC), Chairman

TO: MEMBERS OF THE COMMITTEE ON FOREIGN AFFAIRS

You are respectfully requested to attend an OPEN hearing of the Committee on Foreign Affairs, to be held by the Subcommittee on the Western Hemisphere in Room 2200 of the Rayburn House Office Building (and available live on the Committee website at http://www.ForeignAffairs.house.gov):

DATE: Thursday, July 23, 2015

TIME: 2:00 p.m.

SUBJECT: Pursuing North American Energy Independence: Mexico's Energy Reforms

WITNESSES: The Honorable Carlos Pascual
Senior Vice President
IHS Inc.
(*Former U.S. Ambassador to Mexico*)

Thomas Tunstall, Ph.D.
Research Director
The University of Texas at San Antonio Institute for Economic Development

Tony Payan, Ph.D.
Director
Mexico Center
Baker Institute for Public Policy
Rice University

Mr. Eric Farnsworth
Vice President
Council of the Americas and Americas Society

By Direction of the Chairman

The Committee on Foreign Affairs seeks to make its facilities accessible to persons with disabilities. If you are in need of special accommodations, please call 202/225-5021 at least four business days in advance of the event, whenever practicable. Questions with regard to special accommodations in general (including availability of Committee materials in alternative formats and assistive listening devices) may be directed to the Committee.

COMMITTEE ON FOREIGN AFFAIRS

MINUTES OF SUBCOMMITTEE ON *The Western Hemisphere* HEARING

Day *Thursday* **Date** *July 23, 2015* **Room** *2200*

Starting Time *2:26 p.m.* **Ending Time** *3:37 p.m.*

Recesses ____ (____to ____) (____to ____) (____to ____) (____to ____) (____to ____) (____to ____)

Presiding Member(s)

Chairman Jeff Duncan

Check all of the following that apply:

Open Session [✓]
Executive (closed) Session [ ]
Televised [ ]

Electronically Recorded (taped) [✓]
Stenographic Record [✓]

TITLE OF HEARING:

"Pursuing North American Energy Independence: Mexico's Energy Reforms"

SUBCOMMITTEE MEMBERS PRESENT:

Reps. Duncan, Castro, McCaul, Sires, Yoho

NON-SUBCOMMITTEE MEMBERS PRESENT: *(Mark with an * if they are not members of full committee.)*

***Rep. Hurd**

HEARING WITNESSES: Same as meeting notice attached? Yes [✓] **No** [ ]
(If "no", please list below and include title, agency, department, or organization.)

STATEMENTS FOR THE RECORD: *(List any statements submitted for the record.)*

TIME SCHEDULED TO RECONVENE ____
or
TIME ADJOURNED *3:37 p.m.*

Mark A. Walker
Subcommittee Staff Director

MATERIAL SUBMITTED FOR THE RECORD BY THE HONORABLE JEFF DUNCAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF SOUTH CAROLINA, AND CHAIRMAN, SUBCOMMITTEE ON THE WESTERN HEMISPHERE

CPTI

COMMITTEE ON PIPE & TUBE IMPORTS

900 SEVENTH STREET, N.W. - SUITE 500 - WASHINGTON, D.C. 20001
P: (202) 223-1700 E: TBROWNE@SCHAGRINASSOCIATES.COM F: (202) 429-2522

July 23, 2015

Honorable Jeff Duncan, Chairman
Subcommittee on the Western Hemisphere
House Committee on Foreign Affairs
U.S. House of Representatives
2170 Rayburn House Office Building
Washington, DC 20515

Honorable Albio Sires, Ranking Member
Subcommittee on the Western Hemisphere
House Committee on Foreign Affairs
U.S. House of Representatives
2170 Rayburn House Office Building
Washington, DC 20515

Re: Subcommittee Hearing
"Pursuing North American Energy Independence: Mexico's Energy Reforms"
July 23, 2015

Dear Chairman Duncan and Ranking Member Sires:

On behalf of the members of the Committee on Pipe and Tube Imports (CPTI), a trade association comprised of 47 U.S. steel pipe, tube and fittings producers, accounting for the majority of U.S. production of these products, we provide these comments for the record in conjunction with today's subcommittee hearing.

The CPTI has served its members for over three decades and has served as the industry's voice on trade and competitiveness issues in Congress. Today, the industry continues to advocate for a fair and open market in which to compete. While the industry has directed its efforts to challenge unfairly traded imports, we are also major exporters of these products, approximately $2 billion annually, to other countries including our NAFTA country partners.

We understand that today's hearing will explore the topic of North American energy independence with a focus on Mexico's energy reforms. A significant number of our members make an array of energy tubular products that are used by the energy sector. These companies include manufacturers of welded large diameter steel line pipe. This product is used in pipelines. Our members are prepared to compete for new opportunities abroad and are interested in supplying steel pipe for future pipeline projects in Mexico. In fact, our association was one of the early supporters of NAFTA and worked closely with the U.S. Government on procurement provisions which would ensure the opening of the Mexican market to American steel products. Unfortunately the past two decades have provided few tangible results for the domestic industry. Instead we understand that the Mexican Government has announced new policies that will result in the restriction of steel products into the country.

We believe that the expansion of Mexico's energy sector should provide U.S. producers with an opportunity to compete for future energy projects. In fact, NAFTA partners should all benefit from these opportunities.

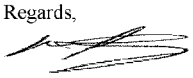
In 2013, we learned that Mexico would launch a new procurement program that would implement a "Buy Mexican" procurement program that would cover sourcing of steel products for energy projects. In fact, Petróleos Mexicanos (PEMEX), Mexico's state-owned oil company announced its multi-billion dollar agreement to buy only locally produced Mexican steel products. The CPTI responded to this announcement by writing to U.S. Trade Representative Michael Froman on November 25, 2013. The CPTI specifically explained that this program would be a flagrant violation of Mexico's NAFTA commitments and asked the U.S. Government to seek clarification of this matter with the Mexican government. To date, no response was received and now two years later we have learned that Mexico is taking further steps to create barriers.

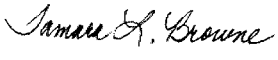
In 2014, the Mexican government announced the filing of antidumping cases against U.S. producers of large diameter steel line pipe. The petition filed by the only two Mexican producers of large diameter line pipe even stated that Mexican regulations require that at least 50% of pipeline pipe be sourced from the Mexican industry. Earlier this month, the Mexican government announced preliminary dumping findings of 55% against the U.S. companies. U.S. large diameter line pipe producers are challenging this decision in the pending investigation.

In 2015, our industry worked with U.S. pipeline companies to secure U.S. pipe for future natural gas pipeline projects in Mexico. There is ample U.S. capacity to serve this market in Mexico, but recently we have learned that the Mexican government is recommending that only Mexican steel pipe be used in these projects. If Mexico is indeed adopting new reforms in the energy sector, they should agree that some of this product can be provided by U.S. suppliers.

Our industry has invested billions of dollars in new facilities to participate in the region's energy renaissance. This industry and its employees are prepared to meet these challenges, but we can only do so if trade is conducted fairly and when markets allow the free flow of goods. We hope that the Subcommittee will be able to further review the issues we have raised in order to develop recommendations that will ensure future economic opportunities for the domestic industry and its workers. Thank you.

Regards,





Roger B. Schagrin
Executive Director & General Counsel

Tamara L. Browne
Director of Government Affairs

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