Commentary
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INTEGRATING NORTH AMERICAN ENERGY TRADE REMAINS ESSENTIAL FOR ECONOMIC GROWTH AND ENERGY SECURITY

On NAFTA and the North American Production Platform

U.S., Canadian, and Mexican energy markets are poised for substantial and sustained growth contributing to expanded employment and energy abundance throughout the North American continent. This production growth offers both energy security and growing abundance in oil and gas supplies for consumers in all three countries. An integrated energy market is of high value for the U.S., which provides a ready market for higher volumes of natural gas production, refined products, as well as exports of advanced oil field services and equipment.

As negotiations get started on the future of the North American Free Trade Agreement (NAFTA), it is essential we have a full understanding of not just trade concerns in the manufacturing sector, but the long-term economic and security stakes for the U.S. of sustaining and promoting full integration of the North American energy market.

This expansion in North American energy output took its lead from the U.S. petroleum renaissance that saw domestic crude oil rise from 5 million barrels/day (MBD) in 2008 to over 9.5 MBD by mid-2015. Although U.S. production fell back by nearly 1 MBD when oil prices collapsed in the second half of 2015, output is rising now with the recent gain in world oil prices. U.S. natural gas production has followed a similar path growing from 45 billion cubic feet/day (Bcf/d) in 1985 to nearly 75 Bcf/d in 2015.

Our NAFTA partners are participating in this petroleum renaissance. The Canadian Association of Petroleum Producers forecast oil sands production in Alberta to rise from 3.8 MBD to 4.9 MBD by 2030. Energy reform and privatization in Mexico promises to halt the decline in crude oil production in an oil province historically starved for investment by a government monopoly.

The actions by the Trump administration to restore certainty and rule of law to oil and gas development and pipeline permitting in the U.S. will provide both new supplies and low-cost transportation options for both Canadian oil sands and North Dakota crude oil for delivery to U.S. refining centers. An open southern border for natural gas combined with pipeline development and power generation in Mexico is providing an important and growing market for U.S. natural gas producers, pipeline developers, and equipment manufacturers. Open access and connections to worldwide petroleum production and consumption centers outside of North America will provide additional opportunities for both efficiency and economic growth in a sector in which the U.S. has many comparative advantages.

We are already realizing the benefits from enhanced energy security and resiliency from this integrated production platform. At the recent Energy 2017 petroleum conference in Mexico City, Undersecretary of Hydrocarbons for the Mexican Government, Aldo Flores Quiroga pointed out that integration is well underway. For example, when it comes to natural gas movements, U.S and Canada already have 42 cross border interconnections, while the U.S. and Mexico have

13 interconnections. Refined products move across three cross border pipeline connections in Canada and four in Mexico. Estimates by the U.S. Energy Information Agency (EIA) show that North American petroleum consumption exceeds 22 MBD, and well over three-fourths of this consumption is now sourced from NAFTA partners, as net petroleum imports amounted to less than 4 MBD. Government forecasts expect the combined U.S., Canadian and Mexican markets to be a net crude oil exporter by the end of the decade.

Last month, U.S exports of natural gas to Mexico exceeded 4 billion cubic feet/day (Bcf/d) and is expected to double in the next few years. The growing export market has helped U.S. producers survive in a depressed market and has also permitted Mexico to replace high cost heavy fuel oil power generation capacity with low cost natural gas. This is both good economic news and a plus for the environment. At the same time, the large and technologically advanced refining centers on the U.S. Gulf Coast are exporting low cost gasoline and diesel fuel to Mexico freeing up capital for our southern neighbor's petroleum sector for oil and gas production that would otherwise have gone into new refining capacity. This is how international trade is supposed to work.

Admittedly, trade flows can be highly unbalanced. According to an analysis by Kevin Book of ClearView Energy partners, in the first 11 months of 2016, U.S. exported to Mexico over $19 billion of energy products ranging from bituminous coal, gasoline, diesel fuel, propane, natural gas, among others while at the same time the U.S. imported about $9 billion of energy products from Mexico, nearly all of which was crude oil. Energy trade with Canada was more unbalanced, as the U.S. imported $52 billion in energy products versus exports valued at $15 billion. Recall that this trade is taking place in close proximity, largely overland, with stable and secure allies. It is also a highly dynamic market, just a few short years ago the U.S. was importing substantially larger volumes of Canadian natural gas, but this trend has now reversed as U.S. supplies surge.

Some commentators have raised concerns that the U.S. will now mimic Russian behavior towards Ukraine by cutting off Mexico from U.S natural gas supplies to gain political and economic leverage. Putting aside that this sort of wild speculation is adding to anxiety in Mexico, participants in the NAFTA energy market should instead take solace that the value of the North American integrated energy market is well understood as both an economic boom to American consumers, growing employment for U.S. workers in the petroleum industry, and more importantly, remains a critically valuable strategic asset.

While there is legitimate concern that trade negotiations with Mexico could spin out of control playing into populist sentiment on both sides of the border, the inherent economic and security interests of all three partners suggests a more likely outcome is a sober and pragmatic approach. One reason for this more optimistic outlook is that the U.S. national security community has put considerable effort into understanding how the North American energy surge and flows contribute to an improved strategic outlook. EPRINC has contributed to some of this work in recent years. Both Secretary of Defense Mattis and Secretary of Homeland Security Kelly are well aware of its importance. The newly installed Secretary of State, Rex Tillerson, the former CEO of ExxonMobil, clearly has intimate knowledge of the functioning of this market. Governor Perry, as former chief executive of the state of Texas for 14 years and soon to be Secretary of Energy, is well versed in the importance of cross border energy trade. The important task going forward is that as the U.S. addresses some of the ongoing concerns on NAFTA trade issues in the manufacturing center, we not lose sight of the widespread economic and security benefits from the integrated North American energy market. Recall that at the time NAFTA was brought into force, Mexico's energy sector was virtually entirely run by state owned monopolies and largely outside the NAFTA agreement. It was inefficient and losing money.

The turn around in Mexico's petroleum and electricity markets involved enormous risks for the political leadership and is now delivering value for both Mexico, Canada, and the U.S. Sustaining the energy reform effort in Mexico remains a high priority not just for the future of Mexico, but for its two main trading partners north of the border.

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ABOUT EPRINC

The Energy Policy Research Foundation, Inc. (EPRINC), was incorporated in 1944 as a not-for-profit organization that studies energy economics with special emphasis on the production, distribution, and processing of oil and gas resources. It is known internationally for providing objective analysis of energy issues.

The Foundation researches and publishes reports on all aspects of the petroleum industry which are made available free of charge to all interested organizations and individuals. It also provides analysis for quotation and background information to the media. EPRINC has been called on to testify before Congress on many occasions, and it briefs government officials and legislators, and provides written background materials on request. Additionally, EPRINC has been a source of expertise for numerous GAO energy-related studies and has provided its expertise to virtually every National Petroleum Council study of petroleum issues. EPRINC receives undirected research support from the private sector and foundations, and it has undertaken directed research from the U.S. government from both the U.S. Department of Energy and the U.S. Department of Defense.

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