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Forging a New Trans-Pacific Energy Trade: Opportunities and Challenges

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World energy markets have undergone seismic shifts over the past decade, driven by Asia's rising energy demand; the new commercial viability of North American energy supplies such as shale gas, tight oil, and heavy oil; the boom in renewables technologies; and progress on improving energy efficiency. These changes are opening up powerful new opportunities for growing energy trade between North America and the Asia-Pacific region and for transitioning toward a cleaner energy future. Forging a new trans-Pacific energy trade and more integrated and efficient energy markets could have major benefits for both sides of the Pacific. As North America's energy production continues to grow, both the United States and Canada will increasingly be looking for secure long-term sources of demand for those resources internationally. This is potentially a perfect match for Asia's growing quest for more secure and environmentally sound energy supplies. The boom in renewables development and improvements in energy efficiency also provide new opportunities for technology trade and accelerating the transition toward a cleaner, less carbon-intensive energy mix.

Nevertheless, while markets are moving rapidly, making the most of these changes will depend on the implementation of a multitude of new supporting policies, investment in critically important infrastructure, public support for energy exports from North America, and the development of more competitive, flexible, and transparent energy markets in Asia. Moreover, strong cooperation will be needed to manage the often rancorous trade disputes over new renewables programs and subsidies. Deepening ties will require strong leadership, vision, and collaboration to bring together the Asia-Pacific region's political leaders, energy policymakers, communities, provincial and state governments, native populations, key players in the energy industry, and environmental groups to construct this new "virtuous circle" of trans-Pacific energy trade.

To explore the actions that will be needed to realize these enormous new opportunities, the Asia Pacific Foundation of Canada (APF Canada) and The National Bureau of Asian Research (NBR) will convene the Pacific Energy Summit on "Forging Trans-Pacific Cooperation for a New Energy Era" in Vancouver, Canada, on April 2–4, 2013. Building on NBR's three previous Pacific Energy Summits and APF Canada's "The National Conversation on Asia," the meeting will discuss the market and policy solutions needed to harvest the full potential for more integrated energy trade and investment between Asia and North America while advancing our environmental and climate goals. This paper offers an overview of key issues for consideration at

the Summit, as stakeholders address how to develop North American energy resources while also meeting Asia's burgeoning energy demand.

Changing Energy Realities in Asia and North America

Asia's Growing Energy Demand

Asia is at the center of the dramatic changes underway in world energy markets, as the region's energy demand booms in order to fuel dynamic economic growth and rising standards of living. The 2012 *World Energy Outlook* by the International Energy Agency (IEA) predicts that global energy demand will increase by one-third from 2010 to 2035, with Asia accounting for nearly two-thirds of that growth.[1] China and India alone will account for half of global demand growth. Members of the Association of Southeast Asian Nations (ASEAN) accounted for 20% of global energy demand growth in the past five years, and the IEA expects that Southeast Asia's energy demand will rise sharply over the next two decades. Asia is also expected to account for nearly two-thirds of the growth in global oil demand and nearly half the growth in global natural gas demand.[2]

As demand has grown so has the region's dependence on imported energy. Already roughly two-thirds of Asia's total oil consumption is imported from outside the region, with two-thirds of those imports coming from the Middle East. Over the next twenty years, Asia's dependence on imported oil will rise to 75%–80%, three-quarters of which will come from the Middle East. This trend will further increase Asia's exposure to both the risk of political instability among its key Middle Eastern suppliers and hazards in transporting the region's vital oil supplies across the increasingly congested and contested sea lanes of the Indian Ocean, Malacca Strait, and the South China Sea. China already relies on imported oil for over half of its needs, and this share is expected to continue rising. Japan relies 100% on imported oil, natural gas, and coal, and the country's virtual elimination of nuclear generating capacity following the Fukushima disaster has deeply aggravated concerns over rising dependence on imported oil and

[1] International Energy Agency (IEA), *World Energy Outlook 2012* (Paris: OECD/IEA, 2012).

[2] For an overview of Asia's growing impact on global energy markets and the major geopolitical implications, see Philip Andrews-Speed, Mikkal E. Herberg, Tomoko Hosoe, John V. Mitchell, and Zha Daojiong, "Oil and Gas for Asia: Geopolitical Implications of Asia's Rising Demand," National Bureau of Asian Research (NBR), NBR Special Report, no. 41, September 2012.

expensive liquefied natural gas (LNG) supplies to meet its electricity needs.[3] South Korea, Taiwan, and much of Southeast Asia face similar long-term energy-security dilemmas. This heavy and growing reliance on imported and increasingly expensive oil and LNG makes energy security a near "existential" issue for the region.[4]

Moreover, the availability and price of LNG is becoming a growing energy-security and economic concern for the region, as countries seek to integrate natural gas supplies into their strategies for increasing supply diversification and shifting to cleaner burning, less polluting fuels. Shifting to a less polluting mix is also vital for slowing the rise in Asia's coal consumption and thereby reducing the carbon intensity of the region's energy use. Asia is likely to account for virtually all the growth in global coal consumption over the next two decades. China alone already burns as much coal each day as the rest of the world combined. To meet its rapidly rising electricity needs and diversify away from coal, Asia is likely to account for a majority of the rise in global LNG demand over the next two decades. Rising Asian LNG demand, Japan's sudden enormous increase in LNG needs, and the oil-linked LNG pricing system prevalent in the region have combined to drive Asian LNG to price premiums that are four times North American gas prices and more than 50% above average European gas prices. The region is desperate to reduce the Asian LNG "premium" by developing new, more flexible pricing formulas and accessing and investing in new LNG supplies globally. Asia sees potential access to U.S. hub-based priced LNG supplies as a key to reducing the price differential between Asian and other regional gas prices. New Canadian LNG would also further diversify Asia's LNG supplies and strengthen energy security. As was highlighted at the 2011 Pacific Energy Summit in Jakarta, natural gas and LNG will be important for not only meeting Asia's future energy needs but also reducing the region's carbon intensity.[5]

Meeting the region's energy demand is critical to a healthy global economy and to improving standards of living. The major Asian countries are looking to reduce their greenhouse

[3] A discussion of these new energy challenges for Japan is available in "Japan's Energy Security: Outlook and Implications," Roundtable, NBR, January 25, 2012, http://www.nbr.org/research/activity.aspx?id=209.

[4] See Tomoko Hosoe, "Asia's Post-Fukushima Market for Liquefied Natural Gas: A Special Focus on Japan," in "Oil and Gas for Asia," 43–56.

[5] For more information, see "Unlocking the Potential of Natural Gas in the Asia-Pacific," NBR, Pacific Energy Summit Report, 2011, available at http://www.nbr.org/research/activity.aspx?id=97.

gas emissions by switching to less polluting sources of energy. Regional states are investing heavily in non–fossil fuel sources such as wind, solar, and nuclear and in electric vehicles with an eye toward becoming world leaders. Today 1.3 billion people still do not have access to electricity.[6] Fulfilling this growing electricity demand and sustaining economic growth will require a tremendous amount of investment. Global energy supply infrastructure will require an investment of $38 trillion between 2011 and 2035, with oil and gas accounting for $20 trillion as the need for upstream investment rises and costs increase.

North American Energy Abundance

At the same time that Asia is witnessing accelerating energy demand, North America is experiencing an energy renaissance. The long structural decline in U.S. oil production since the early 1970s has been sharply and unexpectedly reversed since 2008 because of new hydrofracturing technology used to produce "light, tight" shale oil supplies in the United States that were previously not commercially viable. U.S. oil demand has declined since its peak in 2005 due to both the impact of rapidly rising oil prices and the deep recession caused by the financial crisis that began in 2008. In the future, U.S. demand is likely to grow very slowly and possibly could decline with slower economic growth and the adoption of new, more stringent fuel economy standards. As a result, forecasts by the U.S. Department of Energy and other major institutions now suggest that U.S. oil import dependence is likely to decline steadily from a peak of 60% in 2006 to just 42% today and to 32%, or even lower, by 2035.[7] The IEA recently forecast that the United States could become the world's largest oil producer by 2020 due to rising tight oil production.[8] Expectations for Canadian oil production also are rising as a result of expanding oil-sands developments in western Canada combined with the potential for new tight-

[6] NBR's 2012 Pacific Energy Summit on "Innovative Generation: Powering a Prosperous Asia," held in Hanoi, Vietnam, addressed the critical issues of meeting booming electricity demand in Asia while also moving toward a cleaner energy mix. See "Innovative Generation: Powering a Prosperous Asia," NBR, Pacific Energy Summit Report, 2012, available at http://www.nbr.org/research/activity.aspx?id=166.

[7] U.S. Energy Information Administration, "Annual Energy Outlook 2012," June 2012.

[8] IEA, *World Energy Outlook 2012*.

oil expansions similar to what is happening in the United States.[9] The parallel boom in shale natural gas production and the resulting plunge in North American natural gas prices have also opened up the potential for both the United States and Canada to become LNG exporters over the next decade, further contributing to the growing perception of ample and abundant future U.S. and Canadian energy supplies.[10] Moreover, the rapid rise in U.S. oil and gas output is creating powerful incentives for Canada to look for new energy export markets in Asia.[11] Canada historically has been the largest energy supplier to the United States and has relied almost entirely on the U.S. market for exports of natural gas and oil, but the U.S. market for Canadian oil and gas is shrinking rapidly with rising U.S. production.

"A Match Made in Heaven"

This historic convergence of growing North American energy abundance and low prices with Asia's expanding appetite for imported energy and sky-high prices offers the potential for putting together the proverbial "match made in heaven." Not surprisingly, energy markets and investors in North America, Asia, and elsewhere have already begun to respond to these enormous opportunities. For example, with rising crude oil production, the United States has quickly become the second-largest exporter of oil products in the world; subsequently, in response to rising U.S. and Canadian oil production, U.S. refiners have taken a huge mid-continent crude oil supply surplus and turned it into oil products exportable to both Asia and Europe. New pipeline infrastructure is being built in Canada and the United States to expand the capacity for mid-continent crude supplies to get to the Gulf of Mexico to replace declines in heavy crude supply from Venezuela and Mexico, and possibly East Coast refineries. Canada's Keystone XL pipeline proposal reflects the potential for new infrastructure investments to open up more flexible North American crude oil markets that could ultimately support crude oil

[9] Edward L. Morse et al., "Energy 2020: North America, the New Middle East?" Citigroup, March 20, 2012; and Dina O'Meara, "Oil Production Racing Toward New Highs: Trade Association Bumps Up Conventional, Bitumen Production Outlook," *Calgary Herald*, June 6, 2012.

[10] For an excellent assessment of this outlook, see Charles Ebinger, Kevin Massy, Govinda Avasarala, "Liquid Markets: Assessing the Case for U.S. Exports of Liquefied Natural Gas," Brookings Institution, Policy Brief, May 2012.

[11] See Kevin Lynch and Kathy Sendall, "Diversifying to Asia: Canada's Energy Opportunity," Institute for Research on Public Policy, Policy Options, September 2012.

exports from the United States. Virtually every major global energy company is investing in opportunities for U.S. shale oil and natural gas production, which increases the prospects for huge growth in future output. U.S. and Canadian natural gas producers and many foreign partners are also investing in a number of new LNG export terminals to export booming shale gas supplies. Several U.S. Gulf Coast projects have already been approved by the Department of Energy, and at least fourteen proposals for LNG terminals are in the works. In Canada, there are proposals for major new pipeline transportation infrastructure to move western Canadian oil and natural gas to the west coast for export to Asia, including the new Northern Gateway oil pipeline, the potential expansion of the existing Trans Mountain oil pipeline to the coast, a large natural gas pipeline to a proposed LNG terminal at Kitimat that has already received National Energy Board approval, and major new rail investments to move oil to the coast.

Not surprisingly, Asian oil and gas companies and utilities from Japan, South Korea, China, and Malaysia—many of them state-owned enterprises—are seeking to invest in western Canadian heavy oil and shale gas projects, as well as pipeline projects, in the hopes of ultimately exporting much of that production to thirsty Asian markets. These companies are also investing heavily in U.S. shale gas projects and potential LNG export terminals. Japan, given the new crisis over nuclear power generation and the need for rising LNG supplies, has been extremely active in seeking partnerships in these new projects, negotiating off-take agreements, and promoting the advantages of LNG exports in Washington, D.C.

A New Vision of Trans-Pacific Energy Security and Trade

The Road Ahead

Despite these market and industry realities, policy frameworks affecting the potential for a new North America–Asia energy trade have been painfully slow to adapt in response to these opportunities. In the United States, much of this reticence to change reflects policies built on the culture of energy scarcity that has prevailed since the oil shocks of the 1970s. More recent concerns about the environmental and climate implications of the new boom in unconventional oil and shale gas production have also slowed the policy response. In Canada, the slow pace of change reflects a complacency fostered by the country's long-standing reliance on the United States to provide an ever-expanding market for rising energy exports. There is also a wide range

of environmental, provincial, and First Nations concerns that must be addressed in order to reorient Canadian energy exports westward. Finally, in Asia, there is reluctance among the heavily state-owned energy industries to shift toward more competitive and transparent markets that could ease access to North American energy and encourage more competitive prices in Asia. The prominence of Asian state-owned energy companies in the large investments in the United States and Canada has fueled political concerns over the strategic implications of Asian state ownership in the North American oil and gas patch and added to uncertainty over whether sufficient investment capital will be available to fund the energy boom.

These broad and fundamental global energy trends, along with rapidly evolving technologies and capabilities, suggest that Asia and North America need to adapt their energy relationship to harness the spectrum of potential trade and investment opportunities. These opportunities include heightened energy security through diversification, growing exports of oil and gas, and reduced tariffs on environmental goods and services. The current markets for oil and gas trade between the regions remain sharply segmented due to increasingly outmoded policies that impede more flexible energy trade. The enormous benefits of growing energy trade between North America and Asia can only be realized by implementing a new vision and new supporting policies that promote investment in production, infrastructure, and more integrated and interdependent markets that reflect today's far more abundant and low-cost North American supplies.

This will require an enormous effort to build broad public and policy support for a new paradigm of energy trade between the regions that will reconcile the interests of many stakeholders in these developments, including stakeholders with national energy security interests, those with domestic economic and competitive interests, the energy industry, environmental groups, regional and local groups, and native communities. The factors that will shape the trajectory of trans-Pacific energy ties will develop from the cumulative impact of decisions made at both the national and subnational levels. If these issues can be resolved to facilitate strong ties across the Pacific, the benefits would be significant, including more flexible and healthier markets, more competitive pricing systems, more rapid deployment of critical technologies to reduce carbon emissions and safeguard the environment, and the necessary energy supplies to sustain healthy economies in the Pacific, now the engine of the global economy.

The United States

Moving forward in the United States will require building a new political and policy consensus around a fundamentally different vision of the energy present and future. And this, in turn, will mean finding ways to balance the wide range of interests and concerns about the United States' future energy, economic, and environmental security among a wide range of key stakeholders. The current energy-security policy framework, which is based on the experience of the 1970s oil shocks, has been built on the narrative of energy scarcity, concerns over the strategic and economic implications of oil import dependence, and the pursuit of "energy independence." Until a few years ago, it appeared that the United States would depend ever more heavily in the future on imported oil supplies from unstable areas of the world and increasingly on imported natural gas and LNG supplies, as North America was expected to go "short" on gas.

Although in the last five years this outlook has been literally turned upside down by new technology and production, policy perceptions remain rooted in the past. In the face of huge and growing surpluses in shale natural gas production and plummeting gas prices in the United States, energy industry proposals to export some of that surplus as LNG have been greeted with doubts over future production forecasts and zero-sum fears that exports would reduce domestic supplies correspondingly and lead to much higher domestic gas prices for U.S. industry and consumers. Ironically, the potential opportunity to export LNG to Asia has been a key factor in driving new investment into natural gas production in North America. Allowing LNG exports will expand investment in new U.S. and Canadian natural gas supplies well beyond what would occur if LNG exports were sharply limited. It is a positive-sum game rather than a zero-sum game. Alternatively, some environmental groups fear that encouraging greater natural gas use and LNG exports will simply reinforce dependence on fossil fuels, while low natural gas prices will divert investment away from more important new renewable energy supplies. Prospects for a robust U.S.-Asia LNG trade relationship will depend on finding common ground in the United States among domestic gas-consuming industries, environmental groups, the energy industry, and key policymakers. Likewise, the enormous growth in oil production raises new challenges for potential crude oil exports. Rooted in the 1970s, existing federal rules essentially prohibit exports of crude oil with the exception of oil trade with Canada.

While the United States will remain a net importer of crude oil for another decade, the oil production boom in the mid-continent is creating an enormous regional surplus of light crude oil

and huge price discounts due to lack of pipeline capacity to U.S. Gulf Coast refineries. Moreover, these refineries are largely built to process heavier imported crudes, so there is little market for lighter crude on the coast. The market logic is to export the light crudes while importing heavier crudes, but the prohibition on crude exports makes this impossible. Instead, exports of refined products have boomed as an inefficient but necessary response to crude-pipeline and export constraints. Ultimately, bottling up domestic oil supplies will depress prices, meaning that the oil will simply stay in the ground and the boom will go bust. Domestic policies thus need to be realigned to recognize these new conditions, which will require a bold vision. A consensus will also be needed regarding the expansion of oil pipeline capacity to avoid future situations such as the Keystone XL controversy. Moreover, confidence in and a stronger consensus on the environmental regulation of oil and gas "fracking" technology and water use are vital to future production and, therefore, to increasing energy exports to Asia.

Canada

Canada likewise faces the challenge of fundamentally reorienting its traditional approach to energy exports. Historically a major oil and gas exporter to the United States, Canada in recent years has become the largest source of U.S. oil imports, while Canadian gas exports have typically accounted for nearly one-sixth of total U.S. natural gas use. But with the changes in the U.S. energy landscape, the United States is no longer a seemingly insatiable source of demand for Canadian energy. As Canadian oil is displaced by rising U.S. production and limited pipeline capacity, Western Canadian oil exports are selling at increasingly large discounts to U.S. benchmark oil prices, which are also already selling at a huge discount to Brent crude oil prices,. Moreover, Canada is witnessing reduced natural gas exports to the United States and declining western Canadian gas prices as U.S. gas production booms and U.S. gas prices plummet. Finally, there is resistance among many U.S. environmental groups to importing Canadian oil-sands production that they believe is more carbon-intensive than conventional oil. Opposition to the proposed Keystone XL pipeline is symptomatic of these pressures. Hence, there are risks for Canada that significant new barriers to integration of the Canadian and U.S. energy markets could be on the horizon south of the border.

Under these conditions, it is in Canada's vital interest to reduce the country's reliance on the U.S. market by seeking new oil and gas markets in Asia. A recent report by APF Canada and

Canada West Foundation argues persuasively that Canada should make strengthening energy relations with Asia a national priority. Nevertheless, as the report states, "to realize the full potential of the Canada-Asia energy relationship will require a framework for the Canada-Asia energy relationship that brings into play not only the private sector and federal and provincial governments, but also First Nations governments, communities and environmental interests."[12]

Canada will need to increase investment in western oil and gas production, as well as the development of pipeline and export infrastructure on the country's west coast. However, these developments are highly contentious domestically and will require coalitions of support involving multiple stakeholders. For example, proposals for new oil and natural gas pipelines to the west coast, such as Northern Gateway, will need to build support among environmental groups, First Nations communities, and the provinces involved. While Canadian companies are considering a number of routes for transporting oil and natural gas to tidewater, the ability to export from the west coast is clearly critical to expanding Canada-Asia energy trade.

In order to facilitate domestic support for greater trade with Asia, the report by APF Canada and Canada West Foundation recommends that Canada be aggressive in marketing the full expanse of its energy related assets, including not just oil and gas but also renewable and clean technologies.[13] The report also suggests investigating the potential development of a "public energy transportation corridor" that could be "regulated as a kind of public utility and operated by the private sector."[14] This outcome, however, would require a strong public-private partnership and policy consensus.

In order to fund rising production in western Canada, Canadian companies have been increasingly seeking Asian investment, including from Asian national oil companies. As the recent CNOOC-Nexen and Harvest Energy cases suggest, Canada needs to develop a strong consensus on the scope and role of investment from Asian state oil companies. In December 2012, the federal government clarified "net benefit" rules in the Investment Canada Act. These rules strongly limit the ability of state-owned enterprises to acquire "controlling" interests in an oil-sands business.

[12] Asia Pacific Foundation of Canada and Canada West Foundation, "Securing Canada's Energy Future," June 2012, 4.

[13] Asia Pacific Foundation of Canada and Canada West Foundation, "Securing Canada's Energy Future," 4.

[14] Asia Pacific Foundation of Canada and Canada West Foundation, "Securing Canada's Energy Future," 5.

Moreover, to move the key pipeline and port infrastructure projects on the west coast forward, Canada also needs to forge a domestic consensus on environmental regulation of these projects. For example, recent changes to the Canadian Environmental Assessment Act that shortened reviews for inter-provincial pipelines to fifteen months have been highly controversial. Canada's future development and export of its supplies, with their profile of higher full-cycle carbon emissions, relative to conventional light oil, requires the country to find ways to reinforce its environmental and climate commitments to reduce those emissions as well as implement policies that demonstrate these commitments.

Finally, as the working paper on LNG markets by Shahriar Fesharaki suggests, there is an urgency for Canada to move quickly because it faces very intense competition from many other potential LNG suppliers to Asia. Canadian LNG projects have very long lead times, are relatively high on the supply cost curve, and consequently are looking for long-term, oil-linked price contracts. Major new supplies are being developed, planned, or proposed in Australia, Russia, Papua New Guinea, the U.S. Gulf Coast and possibly Alaska, and offshore East Africa. With Asian buyers looking for major new contracts for supplies beginning 2018–20, Canadian projects face a highly competitive market.

Asia

Asian energy importers seeking greater access to North American oil and gas supplies will also need to make significant changes. The big Asian LNG importers are hoping that potential new supplies of North American LNG will help them forge a new, more flexible regional LNG pricing regime to reduce the "Asian LNG premium." Asia's LNG pricing regime has remained relatively rigid, being based on oil-linked pricing and long-term take-or-pay contracts, while U.S. pricing is directly linked to gas-on-gas competition. Asia's pricing rigidity is partly due to the domination among LNG buyers of a small number of state-owned or private companies that are essentially granted monopolies over regional and coastal gas and electricity markets, which reduces price competition. Moreover, buying decisions among these state-dominated firms are heavily driven by energy-security concerns, while pricing has traditionally been only a secondary concern. Asia thus needs to move toward a more competitive, market-based LNG market. This means developing a more robust regional LNG spot market and reducing the dominance of a few state or large private firms.

At the same time, strengthening policies to improve efficiency and reduce subsidies is key to meeting Asia's energy needs while also curbing growth in demand and moving toward a cleaner energy mix. Asia's underlying demand will inevitably increase sharply over the next twenty years due to robust economic growth, rising per capita income, and rapid urbanization. However, as the working paper authored by Tilak Doshi and Nahim Bin Zahur observes, Asia's efforts to improve energy efficiency have been outrun by rapid demand growth and often inappropriate or ineffective policies. There is enormous scope for slowing growth in energy demand and carbon emissions through more sensible, market-oriented efficiency strategies. Perhaps most important, Asia needs to reduce energy subsidies, which actually accelerate demand growth. Providing affordable energy to poorer groups in Asia is certainly an important public policy goal, but it can be achieved through targeted and time-limited subsidies rather than the common blanket subsidies that ultimately benefit wealthier groups more than the poor. There are also important opportunities for trade in new energy-efficient and lower-carbon technologies between North America and Asia.

Moving Forward Together

Finally, the key to greater Asian access to North American oil and gas supplies and investment in these major new projects is overcoming strategic suspicions in the United States and Canada over large energy investments by Asia's state-owned oil companies. These suspicions are fueled by the very close links between the companies and their governments, which raise concerns that company investments may be stalking horses for the strategic interests of foreign governments. The recent CNOOC-Nexen and Progress Energy cases in Canada demonstrate these concerns. Ways must be found to alleviate these concerns either by increasing transparency among the big state-owned oil companies or by more clearly separating these companies' business decisions from state influence and control. This issue will not be easy to resolve because it is rooted in the industrial organization of the Asian countries, which is likely to change only very slowly. But it remains a key impediment to Asian companies' access to North American oil and gas, as well as their investment in new production and projects that would bring North American energy to Asia.

Thus, in the case of Canada, it is important to find ways to further deepen and build confidence in the relationship between Canada and key Asian countries. Canada's deep relations

with the United States have been built up over many decades of shared experiences, commercial links, infrastructure connections, and extensive people connections. One way to fast-track the relationship would be to adopt a recommendation from APF Canada and Canada West Foundation's report to establish a "Canada Council on Asia." The council would bring together Canadian and Asian leaders to inform the government of Canada and the Canadian public on diversification efforts toward Asia. It would consist equally of members from Asia and Canada and could be chaired by Canada's prime minister.[15] In the case of the United States, while there is a long history of commercial and trade relations between the United States and Asia, the parallel energy trade links are very limited, and strong efforts will be required as quickly as possible to promote new energy trade and investments.

Conclusion

The opportunity for new Asia-Pacific trade in energy presents the potential for enormous benefits for both Asia and North America. Yet key policy decisions need to be made to allow the markets to harvest these benefits. In North America and Asia, highly segmented and often uncompetitive markets must become more integrated, while the flow of investment must be increased to build the necessary energy supplies and infrastructure. This will require new political and social agreements and a new consensus among a diverse set of stakeholders. Strong leadership will be needed from all these groups to forge this new "virtuous circle" of energy trade and benefits.

[15] Asia Pacific Foundation of Canada and Canada West Foundation, "Securing Canada's Energy Future," 28–29.