

SECURING CANADA'S ENERGY FUTURE

REPORT OF THE CANADA-ASIA ENERGY FUTURES TASK FORCE

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Asia Pacific
Foundation
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CanadaWest
FOUNDATION

PROJECT OF THE NATIONAL CONVERSATION ON ASIA

ABOUT THE NATIONAL CONVERSATION ON ASIA

The **National Conversation on Asia** is a broad and inclusive initiative by the **Asia Pacific Foundation of Canada** to get Canadians thinking and talking about what Asia means to Canada. It is supported by Asia-engaged individuals, companies and organizations across Canada.

NCA Task Forces examine and formulate policy recommendations on strategic issues in the Canada-Asia relationship. Broad consultations with government, community and industry leaders, experts and stakeholders are an integral part of each Task Force's activity.

For more information, see www.nationalconversationonasia.ca.



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FOREWORD

THERE IS NO QUESTION about the growing importance of Asia within the global economy, and thus no question that Canada's economic relationship with Asia will be a fundamental determinant of sustainable prosperity for Canadians. Although the relationship with Asia will not replace Canada's longstanding economic relationship with the United States, it will increasingly complement that relationship as Canadians seek market diversification and new opportunities in a dynamic global economy.

At present, Canada's economic relationship with Asia is at best embryonic. As Canadians work to build and expand that relationship, and to attract Asian investment in their economy, potential trade in energy commodities, technologies and expertise provides a wealth of opportunities. Our energy resources are abundant but underutilized, while Asia's demand for energy is voracious and growing. However, these opportunities will be realized only if the supporting policies, infrastructure and public support can be put into place.

To this end, the Asia Pacific Foundation of Canada (APF Canada) and the Canada West Foundation established the Canada-Asia Energy Futures Task Force in September 2011. This Task Force, an initiative of the APF Canada's National Conversation on Asia, was mandated to explore questions of how to build the Canada-Asia energy relationship in a way that takes into account multiple perspectives and concerns, including those of corporate responsibility, infrastructure development, environmental protection, aboriginal interests, and sound public policy. Thus, a major focus of the Task Force's work was to identify the specific sources of leadership required to forge a long-term Canada-Asia energy relationship, a relationship that would boost—but not be limited to—exports of energy commodities, and one that would take into account changing patterns of energy use in Asia toward various forms of renewable energy.

Throughout its work, the Task Force took note of several recent developments that underscored the importance of Canada's future energy relationship with Asia:

- The economic case for energy exports to Asia is now widely accepted, and there have been a number of studies on the feasibility and potential economic benefit of exporting oil and gas to that region.
- The Prime Minister and Minister of Natural Resources have recently spoken out in support of diversifying energy exports so that we are not solely dependent on the uncertain US market, and they have singled out Asia as the source of potential new markets for Canadian energy.

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- Instability in traditional oil-exporting nations is prompting major Asian energy importers—especially China, Japan, and Korea—to look for alternative sources of supply.
 - A dramatic increase in American oil and gas supplies has brought into question Canadian export markets, increased Canadian interest in market diversification, and spurred American interest in accessing Asian markets.
 - Asian investment in the Canadian oil and gas industry has stepped up in the last six months, including major deals led by Chinese, Korean, Japanese, and Malaysian oil and gas companies.
 - The commencement in January 2012 of the National Energy Board review of the proposed Northern Gateway pipeline project has brought into bold public relief the complexities of Asian market access for Canadian energy resources.

Although it is difficult to imagine a more complex issue than the Canada-Asia energy relationship, it is also difficult to imagine a more important issue as Canadians position themselves within a dynamic global economy. Therefore, the Task Force report offers constructive recommendations for expanding Canada's energy relationship with Asia in ways that will serve and reflect Canadian interests and values.

We wish to thank the members of this Task Force, particularly the two co-chairs, Kevin Lynch and Kathy Sendall, for their invaluable insights and guidance. We would also like to extend our gratitude to the many individuals who participated in various meetings, roundtables or one-on-one consultations, all of which contributed to this group's deliberation.



Yuen Pau Woo
President & CEO
Asia Pacific Foundation of Canada



Roger Gibbins
President & CEO
Canada West Foundation

EXECUTIVE SUMMARY

GLOBAL ECONOMIC WEIGHT is shifting towards Asia, which is expected to account for half of global GDP within mere decades. This impressive economic growth is spurring consumption of the types of energy products that Canada produces in abundance. This is an opportunity that Canada cannot afford to lose.

Canada is well positioned to respond to this opportunity. The energy industry accounts for 6.7% of our GDP, 23.2% of export sales and employs more than 350,000 Canadians. However, we do not receive maximum returns for our energy products today due to our excessive reliance on the United States as an export destination. As an energy exporting country with abundant natural resources, we have a significant challenge to responsibly develop our resources while ensuring stable and rising demand for those resources. Security of demand for Canadian energy exports can only be strengthened through international market diversification.

There is a strong case for making Canada-Asia energy relations a national priority. Indeed, 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. To explore the full potential of a Canada-Asia energy relationship, the Asia Pacific Foundation of Canada and the Canada West Foundation established the Canada-Asia Energy Futures Task Force in the fall of 2011. Task Force members have backgrounds in public policy, business, aboriginal affairs, sustainable development, economic analysis and academia. This task force advances a framework

for enhancing the Canada-Asia energy relationship with three key components:

Firstly, this framework will need to “think big” about the diversification of Canada’s energy relationship with Asia. This will entail exporting to multiple countries within Asia and thinking beyond the extraction of oil and natural gas to include all of Canada’s energy related assets, including renewable and clean technologies. Universities, governments and industry should collaborate to establish **energy innovation institutes** to expand the range and quality of energy expertise that can enhance Canada’s capacity to produce and export energy, energy products and energy services.

As an extension of a commitment to diversification, Canadian policy makers and industry must situate the Canada-Asia energy component within the broader trade relationship. Exporting energy to Asia can lead the way for substantial trade in non-energy related products and services. To achieve the objective of greater involvement of small and medium enterprises (SMEs) in the opportunities in Asia, consideration should be given to a more specific trade development focus for Asia in the form of new **public-private trade development partnerships** to help Canadian firms trade successfully in Asia.

Secondly, strong leadership from the federal and provincial governments, the private sector, First Nations governments, communities and environmental groups will be required to establish a framework that benefits all parties, and also embodies a spirit of inclusion and accommodation. It will require a willingness to collaborate among all parties. To “fast track” the deepening of the relationship between

Canada and the key countries of Asia, we believe consideration should be given to establishing a **Canada Council on Asia** that would bring together Canadian and Asian leaders in business, academe, civil society and politics to provide wise counsel to the governments of Canada, both federal and provincial, and Canadians on the Canadian diversification objective towards Asia in all its dimensions.

Thirdly, this framework must facilitate the development of the necessary infrastructure to export energy to Asia in an environmentally sustainable way. Government and industry should encourage an airing of all potential infrastructure options so that they can be discussed and considered in the development of a Canada-Asia energy framework. One idea for further study is a **public energy transportation corridor** that would be constituted by government, regulated as a kind of public utility and operated by the private sector. The corridor idea would require extensive consultations and, where required, agreements with certain provinces, the private sector, First Nations governments and relevant stakeholders. In this way, coming to terms with multiple interests involved in infrastructure projects would rest with more than private sector companies, and would reflect shared responsibility and success.

The establishment of a Canada-Asia energy framework is an ambitious objective, but one that is essential to ensuring Canada's ability to grow and increase its standard of living through being able to compete economically in the Pacific century while pursuing responsible development at home. Canada will not be able to seize the opportunities in the dynamic emerging markets of Asia by simply conducting business as usual.

RÉSUMÉ

LA BALANCE DE L'ÉCONOMIE MONDIALE penche de plus en plus du côté de l'Asie, qui, selon les estimés, devrait contribuer à la moitié du PIB mondial d'ici quelques décennies à peine. Cette impressionnante croissance économique intensifie la consommation de produits énergétiques du type de ceux que le Canada produit en abondance. Il s'agit là d'une occasion que le Canada se doit de saisir.

Par ailleurs, le Canada est bien placé pour saisir cette opportunité. L'industrie énergétique représente 6,7 % du PIB et 23,2 % des exportations du pays et emploie plus de 350 000 Canadiens. Cependant, la dépendance excessive du Canada vis-à-vis des États-Unis en tant que destinataire de ses exportations l'empêche actuellement de tirer un rendement maximal de ses produits énergétiques. En tant que pays exportateur d'énergie doté d'une abondance de ressources naturelles, nous faisons face à un défi de taille : comment mettre en valeur ces ressources de façon responsable tout en s'assurant une demande stable et croissante. Or, le seul moyen de garantir la demande internationale de produits énergétiques canadiens est la diversification des marchés.

Les arguments ne manquent pas pour placer les relations énergétiques entre le Canada et l'Asie au centre des priorités nationales. Cela dit, pour réaliser le plein potentiel de ces relations, il faut créer un cadre global faisant intervenir non seulement les secteurs privé et public, mais aussi les gouvernements des Premières nations, les collectivités et les organisations de défense de l'environnement. Dans ce but, la Fondation Asie Pacifique du Canada et la Canada West Foundation ont créé à l'automne 2011 le Groupe de réflexion sur l'avenir des relations

énergétiques entre le Canada et l'Asie. Ce groupe de réflexion est formé de membres riches d'une expertise dans différents domaines : des politiques publiques au secteur des entreprises, en passant par les affaires autochtones, le développement durable, l'analyse économique et le monde universitaire. Le groupe de travail a pour objectif la promotion d'un cadre destiné à renforcer les relations énergétiques entre le Canada et l'Asie et il comprend trois volets importants :

D'abord, ce cadre doit « viser haut » en ce qui touche à la diversification des relations énergétiques entre le Canada et l'Asie. Il s'agit non seulement de diversifier les destinations d'exportation (exporter vers plus d'un ou deux pays asiatiques), mais aussi de dépasser la simple mise en valeur des hydrocarbures pour inclure toutes les richesses énergétiques du Canada, y compris les énergies renouvelables et non polluantes. Les universités, les gouvernements et les entreprises doivent collaborer pour fonder des **instituts d'innovation énergétique** afin d'augmenter la qualité de l'expertise énergétique susceptible d'améliorer la capacité du Canada de produire et d'exporter de l'énergie et des produits et services énergétiques.

Dans la même veine de diversification, les décideurs et chefs d'entreprise canadiens doivent intégrer la composante énergétique au cadre général des relations commerciales entre le Canada et l'Asie. Les exportations énergétiques vers l'Asie peuvent ouvrir la voie à d'autres échanges fructueux de produits et services. Pour permettre une plus grande participation de petites et moyennes entreprises (PME) sur les marchés asiatiques, il faut se concentrer de façon plus concrète sur l'établissement de nouveaux **partenariats de développement commercial entre les organismes**

publics et le secteur privé en vue de faciliter les activités commerciales des entreprises canadiennes en Asie.

Ensuite, le gouvernement fédéral et les gouvernements provinciaux, le secteur privé, les gouvernements des Premières nations, les collectivités et les groupements de défense de l'environnement devront investir des efforts considérables afin de guider la mise en place d'un cadre avantageux pour tous, dans l'esprit d'inclusion et de conciliation des intérêts. Ce cadre ne pourra être créé que s'il existe une volonté de collaboration de toutes les parties. Aux fins d'une intensification rapide des relations entre le Canada et les principaux pays d'Asie, nous sommes convaincus qu'il faut envisager la création d'un **conseil canadien de l'Asie** qui réunirait des chefs de file canadiens et asiatiques du monde des affaires, des universités, de la société civile et de la politique dans le but de fournir aux différents paliers gouvernementaux ainsi qu'aux et aux Canadiens des conseils éclairés sur tous les aspects des objectifs de la diversification vers l'Asie.

En troisième lieu, le cadre susmentionné doit être structuré de façon à faciliter le développement l'infrastructure nécessaire pour exporter de l'énergie vers l'Asie tout en protégeant l'environnement. Les gouvernements et l'industrie doivent encourager la communication de toutes les options possibles en matière d'infrastructure afin qu'il soit possible d'en discuter et d'en tenir compte dans l'élaboration du cadre énergétique Canada-Asie. Une idée à étudier de près est celle d'un **corridor public pour le transport d'énergie** qui serait créé par le secteur public, réglementé de façon similaire à un service

public et exploité par le secteur privé. Cette idée exige de vastes consultations et, lorsque nécessaire, des accords avec certaines provinces, le secteur privé, les gouvernements des Premières nations et les autres parties concernées. Par ces consultations, la conciliation des intérêts multiples intervenant dans les projets d'infrastructure ne relèverait pas que des entreprises privées et la responsabilité – autant que la réussite – serait partagée entre tous.

L'établissement d'un cadre énergétique Canada-Asie est un objectif ambitieux, mais aussi une démarche essentielle pour assurer la croissance et la prospérité du Canada en rehaussant son aptitude à soutenir la concurrence économique en ce siècle du Pacifique tout en poursuivant le développement responsable sur son territoire. Le simple maintien du statu quo ne permettra pas au Canada de profiter des débouchés sur les marchés émergents dynamiques de l'Asie.

INTRODUCTION

AS A MEDIUM SIZED ECONOMY dependent on international trade, Canada's prosperity is inextricably linked to external markets, and the ability to access these markets. For much of the post-war period, Canadian industry could rely on the United States as the overwhelming source of demand for its commodities, goods, and services. Reliance on the American market was further increased with the signing of the Free Trade Agreement (FTA) in 1988 and the North American Free Trade Agreement (NAFTA) in 1994, which coincided with a more than decade-long expansion of the US economy. The gravitational pull of the US economy made a sound business case for Canadian companies to focus their attention on the American market. Over the years, the infrastructure of Canada-US trade—including energy, transportation, institutions, people-to-people ties and legal frameworks—has deepened to the point where North-South trade has become the norm and is now largely taken for granted.

This decades-long focus of Canadian industry on North American markets has, until recently, meant a general neglect of others. Government and business leaders now recognize the importance of diversifying Canada's commercial activities to take advantage of explosive growth in developing countries, and more particularly in the so-called emerging markets. If there was any doubt about the importance of emerging markets, the "great recession" of 2008 underscored the shift in global economic weight away from the west. In the three years following the recession, emerging markets accounted for over 75% of global growth.

Canada has benefited from the rise of emerging markets and was spared a more severe recession in 2009 in part because of robust demand from Asia, especially China, for natural resources (minerals, metals, agricultural, fishery and forestry products). To the extent that some Canadian businesses were already

selling into Asia and could meet the growing needs of Asian customers, the switch to a more trans-Pacific focus was relatively easy to accomplish. However, for many industries in Canada, exporting to Asia is an entirely new activity that requires a fundamental change in mindset, as well as investments in infrastructure, policy frameworks, business development and marketing, and human resources. This is as true for resource industries as it is for manufacturing and services, but it is particularly important for the energy sector, which is so intimately tied to the US market and in which there is virtually no trans-Pacific trade today in either oil or natural gas.

To address this issue, the Asia Pacific Foundation of Canada and the Canada West Foundation established a task force on Canada-Asia energy relations in the fall of 2011. As a group consisting of individuals with backgrounds in public policy, business, aboriginal affairs, academia, economic analysis, and sustainable development, the task force was asked to come up with a framework for understanding the nascent Canada-Asia energy relationship and some ideas on how the relationship could be advanced.

Discussions about the Canada-Asia energy relationship are often divisive and polarized. This task force is an attempt to bring together diverse views to begin developing a strategic framework for Canada's energy relationship with Asia. The task force does not aim to provide definitive solutions for the balancing of various interests within Canada, but is a start to developing a Canada-Asia energy trade that benefits Canada's diverse populations. We also aim to situate this energy relationship within the broader context of Canada-Asia relations. From our perspective, this energy relationship cannot be separated from the broader political, economic, social and cultural relationships between Canada and Asia.

As a starting point, we agreed on a number of key propositions that we felt were central to the Canada-Asia energy relationship:

- The efficient, responsible and sustainable development of vast natural resource assets in Canada is essential to the growth of the national economy and to continued prosperity for Canadians.
- The primary locus of global economic *growth* for the foreseeable future will be Asia, which has not been the traditional market for Canadian resources, goods and services.
- This economic growth in Asia will generate a strong global demand for energy. Canadian energy resources can play a significant role in meeting that demand.
- Resources without markets, or without the transportation infrastructure linking resources developments to those markets, have no economic value.
- Increased energy trade with Asia needs to benefit all regions of Canada, not just the West.
- Canadian resources must be developed responsibly, meeting high environmental standards and satisfying domestic environment priorities, thereby supporting a positive brand image abroad while facilitating international market access. Such development must be better aligned with First Nations' views of sustainable resource management.

These points lead us to an inescapable conclusion: the full potential of the Canada-Asia energy relationship cannot be realized on a project-by-project, enterprise-by-enterprise basis. Instead, it calls for an over-arching framework for the Canada-Asia energy relationship that involves not only the private sector and federal and provincial governments, but also First Nations

governments, community, and environmental interests. This framework must commit to the diversification of Canada's energy relationship with Asia to include all of Canada's energy related assets, including renewable and clean technologies. Furthermore, strong leadership from all governments will be required to establish a framework that benefits all parties, and also embodies a spirit of accommodation. In other words Canada will not be able to seize the opportunities in the Asian market by conducting business as usual.

CANADA'S QUEST FOR SECURITY OF DEMAND

THE ENERGY INDUSTRY is vitally important to Canada's current and future prosperity. In its 2010 Energy Overview, the Government of Canada attributed 6.7% of our GDP and 23.2% of export sales to the energy industry, which employs more than 350,000 Canadians. In 2011, crude oil was Canada's most valuable export commodity with sales of \$50 billion. Government revenues generated from the industry—close to \$22 billion in 2011—provide indispensable support for the social programs Canadians value.

Oil and natural gas development will also play a role in generating government revenues well into the future. According to the Canadian Energy Research Institute, the GDP impact of the natural gas industry is expected to be \$1.3 trillion¹ over a 25 year period, while oil sands and conventional oil developments are expected to make a combined contribution of \$3.2 trillion. In significant ways, therefore, Canada is an energy powerhouse, and our prospects for sustained economic growth depend very much on growing energy trade.

For an energy exporting country with abundant natural resources, *our biggest challenge is security of international demand for our resources*. This sets us apart from other G7 countries and emerging economies which are more concerned with security of supply.

Historically, Canadian total export trade has been concentrated in relatively few markets—first European, and then American. Over the past century the American market has become the destination of choice for most Canadian exports, with close to 75% of Canada's total 2010 exports going to the United States. Nowhere is our trade dependency on the United States more evident than with respect to energy, particularly oil and natural gas and electricity.

While Canadian coal exports have long gone to Asia, and Canadian firms have built effective supply chains in the region, the situation is dramatically different for oil and natural gas. As Figure 1 shows, Canada's natural gas and crude oil exports go almost exclusively

FIGURE 1. PERCENTAGE OF CANADA'S ENERGY COMMODITY EXPORTS, BY VALUE, DESTINED FOR THE US

	2006	2007	2008	2009	2010
Coal	7.7%	6.6%	3.9%	3.2%	5.2%
Crude Oil (including Oil Sands)	99.8%	99.4%	99.9%	99.2%	99.5%
Uranium	27.1%	25.4%	26.4%	21.7%	25.5%
Hydro	99.8%	99.9%	99.9%	99.9%	99.2%
Natural Gas	100.0%	100.0%	100.0%	100.0%	100.0%
Total	95.6%	95.9%	94.3%	91.9%	91.9%

Source: Statistics Canada.

¹ Honarvar, A, et al. 2011a, 2011b, 2011c.

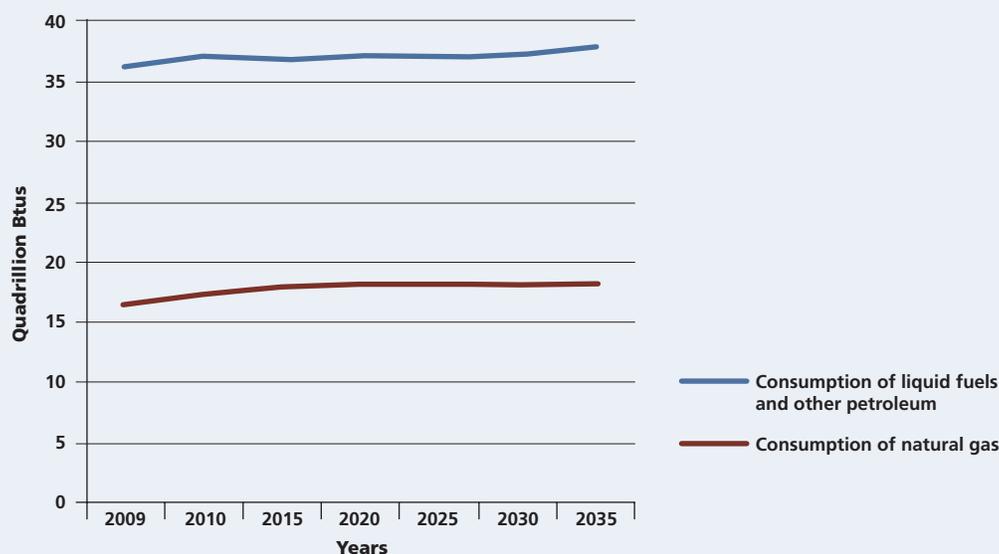
to the US, as do almost all hydro-power exports. Not surprisingly, Canada's energy commodity destination of choice, and up to now of necessity, is our closest neighbour. Despite the occasional storm that rocks the boat, Canada's trade relationship with the US has been amicable, resulting in an integrated North American energy system where Canada plays an important role in American energy security as its largest supplier of crude oil and natural gas.

This almost total reliance on a single customer for our oil and natural gas exports, albeit still the largest economy and energy consumer in the world, is not without risk to a trading economy. As the old cliché goes, when the American economy sneezes, Canada

catches a cold. Economic downturns in the US reduce demand for Canadian products, including energy, and certainly the American economy has been sneezing a lot lately. More fundamentally, basic economics suggest you seldom maximize the value of what you are selling when there is only one buyer for your products.

The trade risks, however, go well beyond sporadic economic downturns and our demonstrated capacity to weather cyclical variation. American energy forecasts show flat demand over the next 25 years. The most recent projections of the US Energy Information Administration, for example, predict little to no growth in oil and natural gas consumption (see Figure 2).

FIGURE 2. PROJECTED US CONSUMPTION OF OIL AND NATURAL GAS

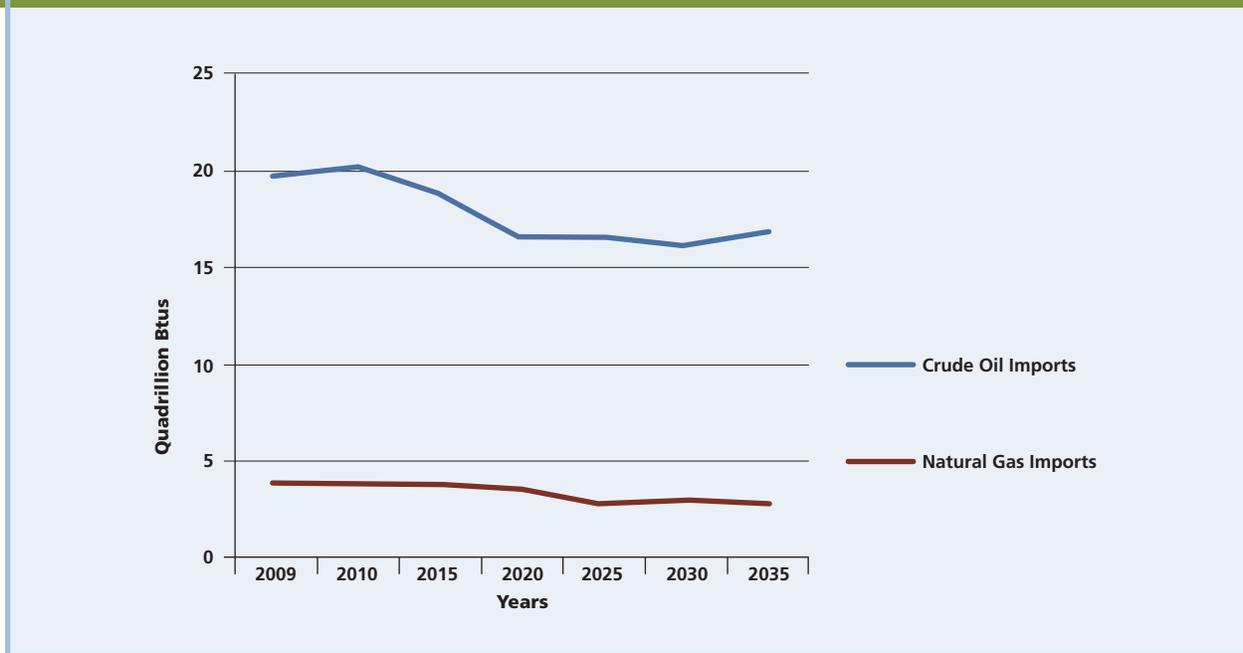


Source: Energy Information Administration.

The picture grows even more discouraging for Canadian producers if we look beyond aggregate demand to projections for American imports. Not only is the American energy demand pie staying the same size, its share of the global pie is shrinking. Both crude oil and natural gas imports are expected to decline over the next two decades as demand is tempered and domestic supply increases (see Figure 3). Unconventional gas and oil discoveries in the United States have increased the prospects for energy independence, and the Keystone XL pipeline dispute illustrates growing market access issues for Canadian producers. Canada, therefore, is locked into a market that is slow growing, intensely competitive and fraught with political pressures.

If the future of Canada's energy sector is dependent on security of demand, then market diversification is imperative. American markets will always remain an important part of Canada's energy future. However, our traditional reliance on those markets will not provide adequate security in light of projected future declines in US import demand for oil and natural gas, and public resistance to the importation of Canadian oil. Without security of demand, the Canadian industry will not be able to make investment decisions for the long-term projects that create jobs and generate wealth. And, as discussed below, the Canadian oil and gas industry will continue to suffer from a price discount relative to world prices if it does not have the ability to sell into other markets.

FIGURE 3: PROJECTED US CRUDE OIL AND NATURAL GAS IMPORTS



Source: Energy Information Administration.

The evidence above strongly suggests that growth in the Canadian energy economy will depend on market diversification—on finding growing international markets where Canadian security of supply is an asset. The US will remain a large, albeit slow growing market for Canadian energy firms, and for the foreseeable future it will continue to be our number one energy partner. The imperative for diversification comes from changing global realities; the primary opportunities for market diversification are to be found in Asia; the primary beneficiaries of that diversification are Canadians.

CANADIAN PUBLIC OPINION ON ENERGY DIVERSIFICATION

A recent poll by Nanos Research (*Policy Options*, February 2012) asked Canadian respondents “whether Canada should diversify its energy markets away from the United States, which now accounts for 99 percent of our oil and gas exports.” Nationally, 74.7% agreed that we should adopt a diversified energy strategy, with agreement ranging from 70.3% in BC to 77.8% in Atlantic Canada. The researchers conclude that “what Canadians are saying here is that while our relationship with the US is very important, they see a diversified energy strategy as key to the long-term future prosperity of the country.” According to the 2012 National Opinion Poll commissioned by the Asia Pacific Foundation of Canada, more than 8 in 10 Canadians believe that Canada should diversify its trade to be less dependent on the United States.

OPPORTUNITIES IN ASIA

THE EVIDENCE IS CLEAR that Asia will be the locus of global economic growth in the 21st century. In 2012, more than 75% of total world growth will come from outside the OECD, with a sizable portion coming from China alone. Within the next decade or two, Asia will account for more than half of total world output. Accompanying this growth will be increasing demand for energy.

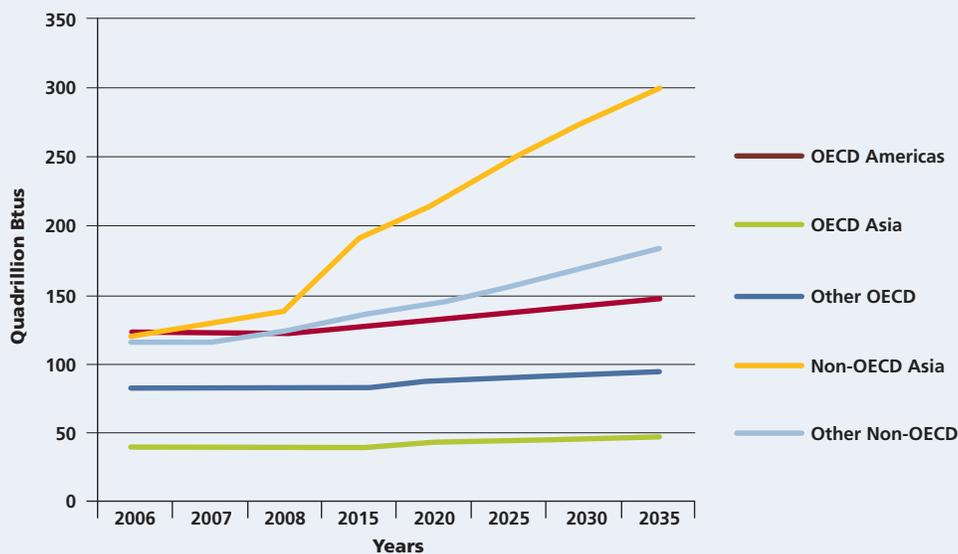
The International Energy Agency's *World Energy Outlook for 2011* projects that world energy demand will increase by one-third between 2010 and 2035, on a current policies basis. Over 90% of that growth is projected to come from non-OECD countries, with China alone accounting for more than 30% of the projected growth. By 2035 China is forecast to consume 70% more energy than the United States in absolute terms, although not in per capita terms. Three-quarters of global energy supply in 2035 is still expected to come from hydrocarbons.

Asian Energy Demand Growth

Rapid Asian economic growth will reflect the well-established relationship between economic growth and demand for primary energy. Between 1971 and 2007, every 1% increase in global GDP was associated with a 0.7% increase in global primary energy demand (International Energy Agency 2009). Generally speaking, the wealthier a country is, the more energy it consumes, holding all else constant, at least in early stages of development.² This relationship is likely to continue despite concerted efforts to break the historical link between economic growth and energy use. Energy demand growth in Asia is expected to be significant between now and 2035 (see Figure 4). While non-OECD energy demand growth in general is expected to be strong, growth in Asian non-OECD countries is expected to be blistering with primary energy demand set to double its 2008 level by 2035.

This provides an excellent opportunity for Canada to align its abundant energy resources and expertise with

FIGURE 4: GROWTH IN WORLD PRIMARY ENERGY DEMAND BY REGION, 2006-2035



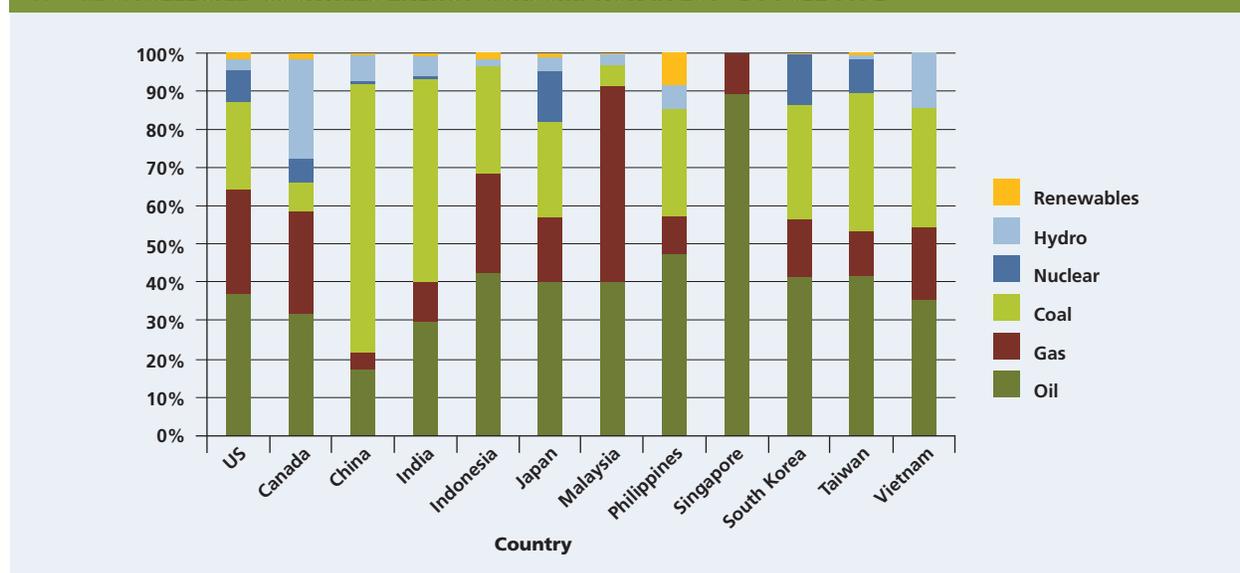
Sources: Energy Information Administration and authors' calculations.

² Advanced economies eventually move into a period of declining energy intensity, and for Asian economies this may take place more quickly than we anticipate because of high costs, environmental challenges and technological leapfrogging (as experienced with cellular communications).

rapidly growing demand from Asia. Currently, traditional energy sources (coal, natural gas and oil) make up most of Asian energy consumption (see Figure 5), and, despite significant efforts to green Asian energy systems, the rapid growth in demand is expected to occur across the entire energy mix (renewable energy sources, coal, natural gas, oil and uranium) (see Figure 6). Opportunities for Canada reach well beyond commodity

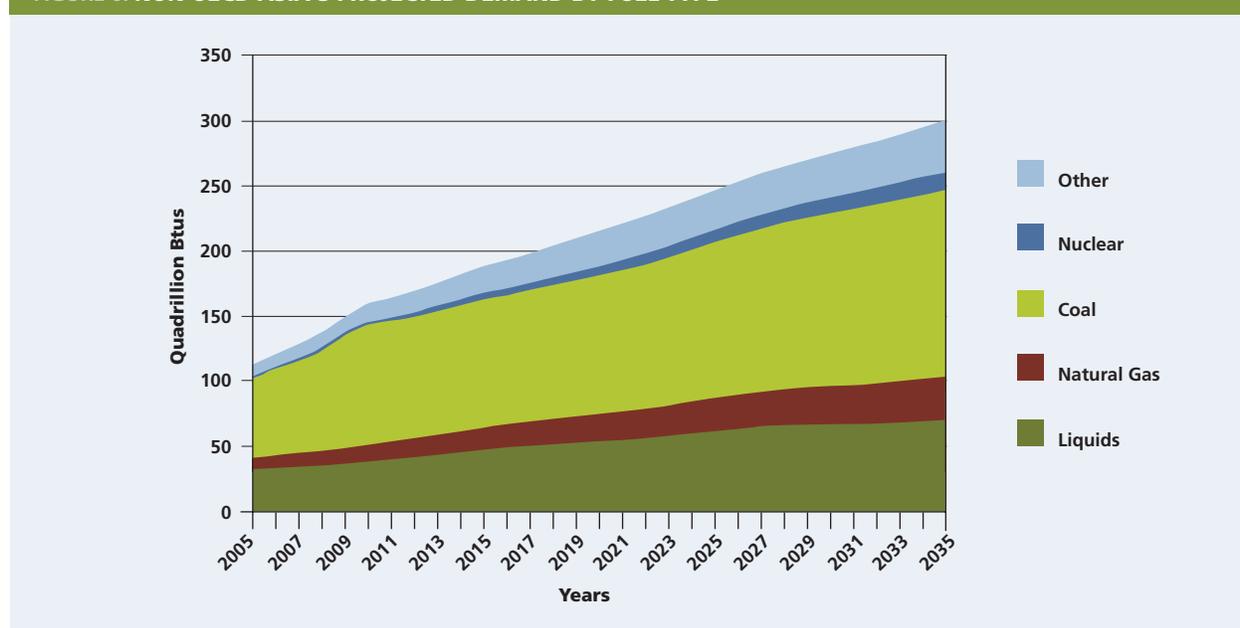
exports to encompass Asian investment to help finance the development of Canadian resource projects, the marketing of Canadian energy, environmental and regulatory expertise, the export of cutting-edge renewable energy technologies, and the construction of new energy and infrastructure systems in Asia. This broader energy relationship, however, is likely to be built on the platform of commodity exports.

FIGURE 5: . SELECTED COUNTRIES ENERGY CONSUMPTION IN 2010 BY FUEL TYPE



Source: BP.

FIGURE 6: NON-OECD ASIA'S PROJECTED DEMAND BY FUEL TYPE



Source: Energy Information Administration. Note: Liquids includes petroleum and petroleum- and non-petroleum-derived liquid fuels.

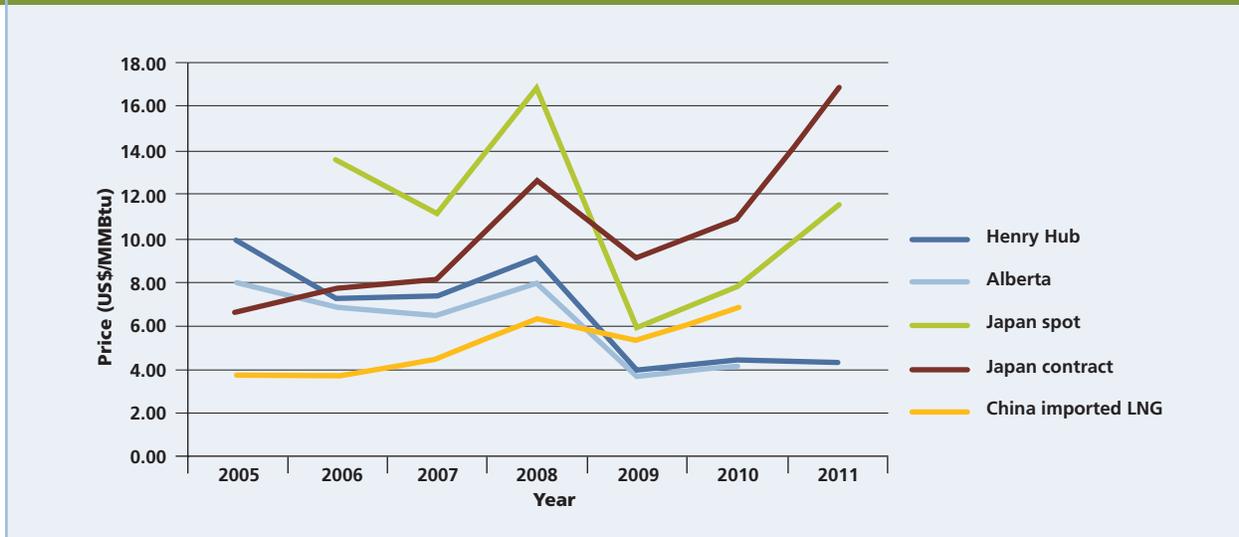
Global energy demand growth will not be limited to Asia, but Canadian prospects for market diversification beyond Asia are limited. Although the Government of Canada has acted aggressively to expand Canadian trade ties with Europe and Latin America, potential global energy markets are more limited in scope than are the potential markets for manufactured and agricultural exports. Shipping energy resources to South America, Russia, the Middle East or Africa would be akin to shipping coal to Newcastle, and the European Union poses significant logistical and market access challenges for Canadian energy. While China has substantial shale gas deposits, recent indicators suggest that these energy sources are years away from meaningful production.³ Asia, therefore, is the primary *growth market* for Canadian energy commodity exports, keeping in mind that global markets for Canadian expertise and technological innovations are much broader. At the same time, we need to recognize that other countries are also aggressively pursuing

Asian markets as a source of growth for their energy exports, particularly Australia.

Price Differentials between North America and Asia

There are significant natural gas and crude oil price differentials between American and Asian markets. Historically, there has been a small spread between the price of imported natural gas in Japan and the spot price at Henry Hub, Louisiana. However, that is no longer the case (see Figure 7). The differential is significant, ranging from \$10.00 to \$30.00 in recent years. Canadian natural gas would yield better producer returns on the international market than in North America where Canadian firms face a glut of natural gas, growing competition and limited bargaining power. This large price-arbitrage potential would bring billions of dollars of additional income to Canada, given our daily gas production potential, if we had greater access to Asian markets for our gas.

FIGURE 7: CONTRACT AND SPOT NATURAL GAS PRICES



Sources: Nexant (2011), WGI (2010-11), PAJ (2011)⁴

³ Song Yen Ling, "New Frontiers: China's shale targets are big for now, but as yet unreachable," http://www.platts.com/weblog/oilblog/2012/04/09/new_frontiers_c_1.html

⁴ The Henry Hub and Japan spot prices for 2011 are the averages for the 1st 6 months of 2011. The Japan contract price for 2011 is calculated using the assumed formula: Contract price = 0.1485 * Average JCC crude price for 1st 6 months of 2011 + 1.0. The formula is derived from Eng (2008), and is consistent with recent estimates of the oil slope amounting to 0.14-0.1485 (WGI, 17 Aug 2011).

A similar price differential exists for crude oil. For many reasons—the infrastructure bottleneck at Cushing, Oklahoma (causing inventories of crude to rise), inadequate pipeline access to Gulf Coast refineries, no access to West Coast refineries and lack of access to Asian markets—Canadian crude faces a significant discount relative to world prices. With Western Canadian crude oil production expected to rise, flat North American demand, and limited pipeline capacity to access refineries in the United States, there will be further downward pressure on prices for Canadian crude. One study projects the discount between Western Canadian Sweet crude and West Texas intermediate at \$27 a barrel by 2014.⁵ Another recent study estimated that with improved Gulf Coast, West Coast and Asian access for crude oil, Canada would see an increase of \$132 billion in GDP (in current dollars), spread over a fifteen-year period.⁶ This presents a significant opportunity, should the differential persist, and one that could be lost if Canada fails to act.

Asia's Quest for Security of Supply

Energy security has been a preoccupation of major Asian economies for nearly 40 years, since the oil shocks of the 1970s. With the rise in overall energy demand in the region, led principally by China, the quest for secure, long-term sources of oil and gas has become more acute. Recent developments have added to the urgency of energy security in Asian countries:

- There is heightened concern about security of supply from volatile regions such as the Persian Gulf, and about transportation safety through the Straits of Hormuz and the Straits of Malacca. China, Japan, and Korea, all heavily dependent on oil and gas from Gulf states, are actively seeking alternative sources of supply. They are also concerned about the security and safety of supply from Russian and Central Asian pipelines. The recent imposition of

sanctions against Iran adds to the pressure for diversification, even for Asian countries that are not part of the sanctions regime.

- The Fukushima nuclear disaster in Japan led to a suspension of about 80 percent of the country's nuclear capacity, prompting a frantic search for alternative energy supplies. The best prospect in the near term is LNG, for which Japan already has well-developed infrastructure.
- Southeast Asia is becoming a less important source of energy for the rest of the region because of dwindling supplies. Indonesia, for example, is now a net importer of LNG. The national oil companies of Malaysia and Thailand are seeking investment opportunities abroad, including in Canada.
- Major Asian countries are looking to reduce their greenhouse gas emissions and are switching to less polluting sources. The export of cleaner fossil fuels (especially LNG) from Canada to Asia could result in a net environmental and health benefit for the region.

Many Asian countries are also looking to energy efficiency and the use of renewables as part of their overall energy security strategies. China is already a leader in solar panels, and is investing massively in other green technologies in an effort to address severe environmental challenges in the country, and to create industries of the future. In Korea, "green growth" has become a national priority, with set targets for the use of renewables in the overall energy mix and significant investment in clean energy such as wind power. Japan is an established leader in energy efficiency and technologies for a low-carbon economy, and can be expected to continue in this direction even as it seeks near-term alternatives to nuclear power in the wake of the Fukushima nuclear disaster. British Columbia and Alberta now have hundreds of millions of cubic meters of dead lodgepole pine equivalent to more than 10 years

⁵ Moore et al. 2011.

⁶ Moore et al. 2011.

CANADA-CHINA COOPERATION ON CLEANER AND GREENER ENERGY

Canada's energy partnership with China goes beyond private sector investment and trade potential; Canadian universities and research institutions have been engaged in joint policy and scientific research with their counterparts in China in order to develop cleaner and greener energy.

The most well-established of these initiatives is the China Council for International Cooperation on Environment and Development (CCICED), with its Secretariat International Support Office (SISO) based at Simon Fraser University. The CCICED, a multi-phase (1992-present), multi-million dollar initiative, has focused on providing the Chinese government with strategic advice and policy recommendations on sustainable growth. As one example, in 2009, a CCICED Task Force explored China's attempts to shift to a low-carbon economy and to obtain greater energy efficiency.

In 2010, the University of Victoria's Institute of Integrated Energy Systems launched a Canada-China Clean Energy Initiative with a number of partner institutes in China. The initiative has concentrated on four specific areas: renewable energy technology; hydrogen and fuel cell technology; green vehicles, electric drives and battery technology; and smart grid technology. It held its third annual conference in Beijing in April 2012.

In addition, a team at Dalhousie has been studying how to convert the power of tidal waves into usable energy, and the University of Alberta signed a five-year Sino-Canada Joint Energy Research Initiative with Tsinghua University (Beijing) that will advance energy and environment technologies, including the commercialization of those technologies.

of annual harvest. This wood is quickly deteriorating for saw log availability, but could be an excellent source for Asia's bioenergy market, especially those that seek to convert from burning coal to a cleaner source of energy such as wood.

The quest for energy security in Asia, therefore, is multi-faceted and presents a range of energy opportunities for Canada. In the foreseeable future, major Asian economies will continue to rely overwhelmingly on fossil fuels for their energy needs and they will be looking for secure, long-term sources of supply. Canada is very much on the global energy radar not just as a potential supplier, but, in many respects, as a preferred choice over alternative suppliers in troubled parts of the world. At the same time, the determination of Asian countries to become more energy efficient and less reliant on fossil fuels presents an opportunity for Canada's energy relationship with Asia to include cooperation on clean energy, energy efficiency and environmental protection in the energy sector. For most Asian countries, securing reliable, long-term sources of fossil fuels and investing in green growth are part and parcel of the same overall energy security strategy.⁷ There is no contradiction between the two and, hence, no reason why the Canada-Asia energy relationship should not embrace both.

⁷ Honarvar, A, et al. 2011a, 2011b, 2011c.

BROADER BENEFITS OF A CANADA-ASIA ENERGY RELATIONSHIP

A CLEAR CASE HAS been made for the alignment of Canada's interest in security of energy demand with Asia's quest for security of energy supply. The current misalignment can be seen most vividly in the price differentials that exist between North American and Asian oil and gas markets, which present an immediate opportunity for trans-Pacific oil and gas exports. Alignment of Canadian and Asian energy interests, however, should extend to all forms of energy cooperation, drawing on the diversity of energy assets and expertise across the country. The opportunities for market development by Canadian firms in Asia are immense, whether it is oil and gas and/or its associated expertise in the Western provinces, Atlantic Canada, and the North; hydroelectric and nuclear expertise in Ontario and Quebec; uranium assets in Saskatchewan; coal assets in various parts of the country; or expertise in energy conservation, renewable energy sources, carbon capture and sequestration, and clean technology in all parts of the country.

While the benefits of energy exports to Asia are obvious for the regions and companies involved, there are broader benefits that can accrue to Canada as a whole. These include

- Royalty payments that enable provinces to support health, education, and other social programs that Canadians care about.
- Tax revenue for federal and provincial Governments to provide high quality public services.
- Revenue streams for First Nations communities to provide services to support economic development and new job prospects.⁸
- Expanded energy trade with Asia could lead to a broader expansion of goods and services trade between Canadian firms and new Asia customers, given the extensive upstream and downstream linkages between the energy sector and other industries. Indeed, Canada is well known for its engineering, energy and environmental services expertise. The spin-off business from expanded energy trade would benefit every region of Canada and promote greater trade diversification in terms of both markets and products.⁹
- Energy exports to Asia would help redress a very large trade imbalance, especially in the case of Canada-China trade. Although Canadian trade with China has grown in absolute terms over the past decade, Canada's share of China's total trade is around 1%, well below Canada's share of global trade.
- Commodity trade with Asia could encourage Asian investment in the future development of the Canadian resource sector, including renewable energy, and possibly in the infrastructure needed to connect Canadian resources to international markets. These kinds of long-term partnerships have the potential to extend well beyond resource extraction into technology sharing, research and development, and third-country cooperation. A recent example is the announcement by Hitachi to partner with SaskPower on a \$60m Carbon Capture Test Facility, building on the Japanese company's longstanding investment in Canada's energy sector.
- Given the strategic importance of energy, an expanded Canada-Asia energy relationship could be a game changer in Canada's relations with Asia; it would provide a compelling reason for Asian powers to take Canada and Canadian interests more seriously, thereby opening the door to broader diplomatic, economic, and social/cultural benefits.

⁸ The First Nations Energy and Mining Council and other First Nations political organizations believe that both the Crown and industry have a responsibility to enter into Resource Agreements and Revenue Sharing Agreements respectively with affected First Nations governments. For more information, see First Nations Energy and Mining Council, *Sharing the Wealth: First Nations Resource Participation Models (2010)*.

⁹ Currently only 3% of Canadian exports go to China, and less than 1% each to South Korea, Taiwan, and Singapore.

THE STATUS QUO IS A RISKY OPTION FOR CANADA

The need for energy in Asia is an opportunity that may disappear if Canada does not act decisively. Canada is perched on the edge of a vast regional market for which there are competing sources of supply, some of which face less daunting logistical obstacles in moving energy assets to Asian markets. Australia is an increasingly active player, Russia is in the wings, and firms operating in Alaska, confronting the same depressed North American gas prices that Canadian-based operations confront, are exploring Alaskan natural gas exports to Asia. Given the long-term nature of energy supply contracts, sometimes stretching out to 30 years, and the long lead times in building infrastructure and customer relationships, there is a very real risk that when Canadian suppliers finally come calling, Asian markets will be saturated.

In the face of contentious debates around infrastructure and transportation needs for the export of oil and gas, Canada's riskiest choice may be to avoid making a decision. The status quo is a choice, and will in itself send a powerful message about Canada's willingness to build an energy relationship with Asia and be a player in the new global economy. There should be no illusion that Asian buyers will wait indefinitely for Canada to act, nor will other suppliers to Asia.

The magnitude of the Canada-Asia energy opportunity, the scope of its impact across many industries and regions of the country, and the breadth of potential economic and social benefits for all Canadians underscores a key message of this report: the goal of a Canada-Asia energy relationship cannot rely solely on the efforts of individual firms and projects. There is truly a national interest in pursuing a broad-based Canada-Asia energy relationship, and hence an urgent need for national leadership.

Of course, balancing these benefits are risks that could manifest as costs, notably concerns over oil spills, both small and large, that could impair traditional, societal and economic values in sensitive and unique ecosystems. Project impacts during construction could also result in impacts on the ecosystem, leading to unintended economic costs. Finally, emissions associated with the production and transportation of oil and gas exports will increase both GHG and air pollutant emissions. Responsible development of Canada's energy resources involves balancing the economic benefits of increased exports with the potential domestic environmental risks, including the health and well-being of affected communities downstream.

A STRATEGIC FRAMEWORK FOR CANADA-ASIA ENERGY RELATIONS

THERE IS A STRONG CASE for making Canada-Asia energy relations a national priority. Prime Minister Stephen Harper has made clear his determination to diversify Canada's trade towards Asia, with a focus on exports of Canadian energy products. However, it is less clear how this will come about, or if the efforts of individual provinces, firms and projects will in and of themselves amount to the kind of broad-based energy relationship with Asia that will generate the scale of potential benefits for the country as a whole. Indeed, it is conceivable that specific oil and gas export projects could fall victim to economically damaging delays if stakeholders do not have a vision of the Canada-Asia energy relationship that includes the distribution of benefits across a wider spectrum of interests.

This task force recommends the development of an inclusive strategic framework for the Canada-Asia energy relationship that engages the broader national interest. The onus is on the private sector and governments, both federal and provincial, together with First Nations leaders and environmental interests, to create and coalesce around such a framework, and over a timeframe that recognizes the urgency to act in order to capture this opportunity.

The building blocks for this strategic framework should include the following:

1) Think “Big” on Diversification

Diversification into significantly new and different markets and geographies works best at a significant scale and scope: in short, think “big” on diversification. Canada needs to develop the capacity to export energy to Asia, which is home to the most rapidly growing markets for energy products. However, diversification is not simply about exporting to new markets. If Canada is to maximize its future prosperity, Canadian governments and industry should ensure that they are not overly focused on one country,

or product, or industry, or technology, in their relationships with Asia.

A major focus of this diversification strategy also should be to emphasize innovation and value added, which means, where economically feasible, going downstream on energy products and services to the greatest possible extent, including greater emphasis on innovation in the conventional and alternative sectors.

a) Country Diversification: As the world's fastest growing economy, China must be a priority market for Canada's energy products. However, China is not the only Asian country that will require substantial energy resources in the future. Diversification should mean selling energy products and services to multiple buyers in multiple countries, thereby strengthening Canada's security of demand.

Japan, for example, will require imports of natural gas as it shifts away from nuclear power production following the Fukushima Daiichi nuclear disaster. Korea is already a major importer of natural gas and uranium and should be another priority market for energy exports. India is a more distant market for Canadian oil and gas exports, but there is good potential for the sale of uranium and nuclear expertise, subject to final arrangements under the Canada-India nuclear cooperation agreement. Geographic market diversity will ensure that Canada will be able to sell its energy to the buyers willing to pay the highest price for those products.

b) Product Diversification: Canadian governments and industry should promote the full range of their energy commodities, expertise and renewable energy technologies in Asian markets. Asian countries will not only be looking to import oil and natural gas, but also a wide range of other energy and mineral

products, including renewable energy and green technologies.

Canada's renewable energy and green technologies sector need access to large and fast growing Asian markets to be competitive, which in turn support product development and innovation. There is no contradiction between oil and gas exports on the one hand, and cooperating on green growth with Asian countries on the other. Indeed, many Asian governments are interested in working with Canada on a range of energy issues that address the twin concerns of energy security and greenhouse gas emissions. For example, the head of the Presidential Commission for Korea's National Green Growth Strategy recently called for a partnership with Canada to advance green growth in both countries, even as he pointed to the urgency and opportunity of Canadian natural gas exports to meet growing Korean demand.¹⁰

Canadian energy expertise is found across the country, and extends into the financial and manufacturing heartland of Ontario and Quebec. The Toronto Stock Exchange and the TSX Venture Exchange are already global centres for the listing of mining and energy extraction companies, as well as for the financing of energy projects. Indeed, there are emerging clusters of energy expertise across the country.

The further development of Canadian energy clusters (in extraction, distribution, research, finance, manufacturing, etc.) can serve as platforms for the expansion and diversification of energy trade with Asia, including higher value-added activities, which are based on strategies that are specific and economic to each cluster.

c) Industry Diversification: In the same way that energy trade with Asia should encompass a wide range of products and services from Canada's various

IT'S ABOUT MORE THAN EXTRACTION: THE EXAMPLE OF WESTPORT INNOVATIONS INC.

Rapidly growing energy consumption in China, especially in the transport sector, is creating strong demand for technologies that decrease engine emissions. Westport Innovations Inc. is a Vancouver-based company that develops and markets low-emission, natural gas engines and is capitalizing on this trend in China to market its products and expertise. Westport Innovations sells its engines to public transportation agencies across China. The Beijing Public Transportation Corporation bought its first order of engines from a Westport joint venture (Cummins Westport Inc.) in 1999 and has since become Cummins Westport's largest customer in Asia. Westport is also actively pursuing sales in Thailand, Japan, Indonesia and Korea, amongst other Asian nations.

energy clusters, the Canadian economy as a whole must look to Asia as a key source of demand for future growth and innovation. The fact that Asia has become the most promising market for Canadian energy exports means that it is also the most promising market for other Canadian industrial sectors.

At the heart of Asia's continuing rapid economic rise—and hence the growing need for energy and other resources—is the dramatic increase in the middle class and the need for massive investments in infrastructure. These two forces are creating new sources of demand for products and services across a range of industries that Canada can, and should, capitalize on. In Canada, much attention has been placed on the impact of the emerging economies in Asia on the global demand for natural resources. However, much less attention had been paid to the emergence of a middle class in these economies (estimated in the range of 600-900 million) and the

¹⁰ Canada-Korea Forum 2011.

consequences for global demand of goods and services that meet these new middle class consumers' needs and tastes.

Simply put, we also should be considering what these newly emergent consumers want—whether it is better and more sophisticated nutrition for their families; better housing; better education; better health services; better financial services; or better entertainment services, including tourism—and consider how Canadian companies can provide them. As part of this, we need to consider how to best get Canadian enterprises, including small and medium-sized enterprises (SMEs), involved in these opportunities.

To achieve the objective of greater SME involvement in the opportunities in Asia, consideration should be given to a more specific trade development focus for Asia in the form of new **public-private trade development partnerships** to help Canadian firms, including energy companies, trade successfully in Asia. These partnerships would create critical mass in information sharing and market knowledge among Canadian enterprises interested in exploring Asian opportunities, expanding on the current efforts by the Department of Foreign Affairs and International Trade (DFAIT) and Export Development Canada (EDC). These partnerships should also include industry groups such as boards of trade, chambers of commerce, and universities and community colleges. Critical to sustained success is the training of the current and next generation of Canadian business leaders to do business in Asia.

The Canada-Asia energy relationship should therefore be set in the context of a broader Canada-Asia strategy that is based on stronger diplomatic relations, trade and investment agreements with key Asian partners, involvement in emerging Asian regional institutions, and market diversification strategies at the provincial and sectoral levels.

d) Diversification through Innovation: If Canada aspires to be an energy powerhouse for the long term, it must become an *innovation* powerhouse in energy, including in unconventional oil and gas exploration, development and production; renewable energy development; hydro power, distribution and logistics; and conservation. We need to be innovating in the energy products and services we sell, the processes by which we produce and distribute them, and the markets into which we sell them. But Canada suffers from too little investment in research and innovation today in all sectors including energy. In fact, as Lynch and Sheikh demonstrate, Canadian private sector spending on research and development (R&D) ranks 15th among OECD countries.

What will this take? Building on the large investments in Canada's university research capacity by both federal and provincial governments over the past 15 years, governments and the private sector should commit to establishing world class centres of excellence in energy research and technology, matched to Canada's energy strengths, at a scale, scope and level of excellence that would place Canada at the global forefront of key aspects of energy research and innovation.

This task force recognizes that some of this infrastructure already exists. The Government of Canada has already established the Networks of Centres of Excellence to fund research collaborations between industry, academia and governments across a range of industry sectors, not just energy. Furthermore, many universities already have institutes that promote research partnerships between industry and academia on renewable and hydrocarbon energy technologies. Excellent examples include the University of Calgary's Institute for Sustainable Energy, Environment and Economy and the University of British Columbia's Clean

Energy Research Centre. Nevertheless, greater emphasis needs to be placed on articulating a national, not only a provincial, vision for centres of innovation that cover both carbon and renewable energy industries, and scaling the level of research and innovation to the size of the opportunities.

A network of **energy innovation institutes** would foster close university/industry/government investment and collaboration on research and problem solving, and have the compelling mandate of making Canada a recognized global leader in efficient energy production, including value added energy products and energy solutions. This should include best practices in the mitigation of environmental and other impacts on communities in the regions affected by oil and gas development.

2) The Need for Leadership

An expanded Canada-Asia energy relationship has the potential to provide substantial benefit to Canadians all across the country provided we think creatively about the potential markets and benefits. However, the development of this relationship involves many different jurisdictions, corporations, and civil society groups that have a heterogeneous set of interests. Parties affected by specific projects or proposals will legitimately take the perspective of their specific and sometimes narrow interests as defined by the community, organization, or government which they represent. The federal government, on the other hand, has both the challenge and opportunity of defining and advocating for the national interest.

This report has characterized the challenge of building a Canada-Asia energy relationship as a national endeavor that would generate benefits for all parts of the country. To achieve this goal, there needs to be a vision of the energy relationship with Asia that appeals to different regions and sectors of the country. This process will be challenging as some groups

undoubtedly receive more direct benefits when energy is extracted and exported from Canada than others who may be more concerned with the associated risks.

Crafting such a vision will require leadership from stakeholder groups across the country and, in particular, from the federal and provincial governments, and from First Nations governments, industry, and environmental and other civil society organizations. To quote from an earlier commentary: “Energy is the lifeblood of every economy and society around the world. But there are inevitable linkages and trade-offs among economic growth, energy use, environmental stewardship and standard of living objectives. The challenge is to address these trade-offs, not to be stymied by them, and to do so in an inclusive, analytic and realistic manner with the clear goal of improving the long-term prospects of Canada and Canadians. The role for industry, governments, environmentalists, Aboriginal groups and citizens is to engage together to find those positive compromises, and this takes leadership”.¹¹

Some of the most critical areas in which leadership is required include the following:

Federal Government

The federal government is the obvious leader in developing a framework for the Canada-Asia energy relationship. As envisioned in this report, the framework should be based on the fundamental need for closer economic ties with Asia to secure Canadian prosperity, diversification of markets to protect Canada’s security of demand, and a broad definition of energy that includes fossil fuels, renewables, clean technology, and energy expertise. By focusing on market fundamentals and the benefits of expanding the scope of the opportunity, there is a better chance that the federal government will be able to shape a framework that accommodates the interests of commercially motivated firms, of provincial

¹¹ Lynch and Sendall, 48.

governments and of impacted First Nations, and win the support of the general public.

While the business of exporting oil and gas to Asia will be carried out predominantly by private interests, the federal government can play a vital role in establishing trade and investment relations with Asian governments. Given that most Asian oil companies and utilities are government-controlled, the role of state-to-state discussions is critical. In the case of natural gas exports, it is essential that long-term contracts are in place for these projects to proceed. For example, the federal government should make LNG exports a priority item in its discussions with counterparts in Japan, Korea, and China.

More generally, the federal government has an inescapable role in developing the linkages between Canadian resources and Asian markets. Its constitutional responsibilities for international trade, ports, fisheries and oceans, navigable rivers, and for Aboriginal affairs, along with its concurrent powers relating to environmental stewardship, permit no other conclusion. Both the federal and provincial governments will need to co-operate to continue the development of streamlined regulatory processes that provide a sufficient level of standards and scrutiny, while also creating more efficient and effective energy project approval processes.¹² The federal government will also have an important role in encouraging cooperation and collaboration among the various interests, including First Nations, provinces, private sector concerns and other stakeholders. Indeed, without the federal government as an active player at the table, negotiating the inevitable trade-offs in project development and securing the social license to operate would be difficult, if not impossible.

Provincial Governments

A broad-based framework for Canada-Asia energy relations should articulate the benefits of energy

exports for all parts of the country, and not simply for oil and gas-rich western provinces. To be sure, development of the oil sands in Alberta creates economic activity well beyond its borders, which in itself makes oil sands development of national import. The framework can go further, however, by identifying the ways in which other energy assets in the country have the potential for export and to attract foreign investment, resulting in direct benefits to non-western provinces. By accepting the premise of Canada as an energy power in the broadest sense of the term, provinces can carve niches in areas of expertise and develop export and investment opportunities as part of the overarching Canada-Asia energy framework.

In the near term, those provinces that are at the leading edge of potential energy exports to Asia can demonstrate leadership in a variety of ways. For example, Alberta must more clearly articulate the benefits of oil sands development for the rest of the country and provide leadership in the formulation of a Canada-Asia energy framework that explicitly includes renewable and clean technology. BC can advance discussions with First Nations governments on Strategic Land Use Agreements, such as the one concluded with the Haida and the Tlingit. Saskatchewan is an energy-rich province with interests in uranium and oil. Moreover, Asian markets are already accounting for a large share of its exports. It can likewise play a role in the development of a broad based Canada-Asia energy framework.

Further, working with the federal government and industry as part of the public-private trade development partnerships, the provinces should enhance their marketing of natural resources in Asia, especially in the case of first-time exports of energy products such as oil and gas. Provincial governments also can play a large role in ensuring that Canadians have the soft skills necessary to further trade with Asia, including more programs for learning Asian languages and

¹² The 2012 federal budget announced changes to streamline regulatory approval processes with defined timelines and less overlap between jurisdictions.

cultures, as well as improved educational exchange opportunities with Asian countries.

Industry

The current state of industry-stakeholder relations on a number of proposed Canadian energy export initiatives is a somewhat troubled one. There is vocal opposition to projects from a variety of aboriginal communities, environmental groups, and some provincial and municipal leaders. Without a broader view of the imperative for energy exports to Asia and the benefits that can accrue to Canadians, the obstacles facing specific projects and the possible delays can be very considerable. Business has to be part of this broader perspective.

Business has a clear interest in helping shift the public policy question on transporting energy to Asia from *whether it should happen to which options are best*. They have a responsibility to address the risks that are associated with their projects, which in turn makes it easier for governments to demonstrate the national interest in supporting these projects.

More specifically, industry should be less reticent about commitments to underwrite losses resulting from environmental mishaps, including the loss of livelihood and impacts on the land and health of local people, since these are the fundamental concerns of affected communities. More attention should be given to mitigation plans and insurance schemes, rather than mere assurances of safety. Further, public consideration of alternate proposals to transport energy products to the coast should be encouraged so that there is a fuller picture of the options and wider public awareness of the technical challenges involved.

First Nations

Many First Nations governments are looking to develop business ties with Asian partners in all sectors, including in the energy sector. Working with the Asia

TRANSPORTATION OPTIONS

There are currently a number of different transportation options to facilitate energy exports to Asia. But each of these is being met with varying levels of support and opposition.

Pipelines: Canada has limited pipeline infrastructure for exporting oil and liquefied natural gas (LNG) to Asia.

There are currently two major oil pipeline projects being proposed—one a new project, and the other an expansion and extension of an existing pipeline—that would transport crude oil from Alberta’s oil sands to the British Columbia coast for export to Asian markets. A pipeline for transporting natural gas from Summit Lake to Kitimat has received environmental approval and may be operational by 2015.

Rail: Two Canadian rail companies are developing plans to transport Alberta oil to BC’s west coast. One company proposes that it can move 200 thousand bpd or more of Alberta oil by rail to terminals at Kitimat, Vancouver, Prince Rupert and US destinations.

Alternate pipeline and tanker routes: The port of Kitimat is not accessible directly from the open ocean; rather, tankers will have to pass through complex passageways to the port. Alternative pipeline routes and end-point locations that are more easily accessible to the open ocean would include the port at Prince Rupert.

Pacific Foundation of Canada, the BC First Nations Energy and Mining Council released the *First Nations China Strategy: Transforming Relationships*¹³ and provided the leadership for a First Nations mission to China, led by the Assembly of First Nations, that took place in October 2011. These are encouraging first steps in the First Nations-Asia relationship and it is

¹³ *First Nations and China: Transforming Relationships (2010)*, http://www.fns.bc.ca/pdf/FirstNationsandChina_TransformingRelationships.pdf.

vital for First Nations leaders to continue to articulate their vision of cooperation with Asia.

The Constitutional rights of First Nations across Canada must be respected and protected. The lack of treaties in British Columbia, Canada's major access point to the Pacific Ocean, is particularly relevant to a Canadian vision for exporting energy resources to Asia. Greater certainty for investors in the resource sector can be achieved by concluding agreements with First Nations governments. Doing so will help

provide certainty for investors in Canada's natural resource sectors. Reconciliation Agreements, such as the 2009 Haida-BC Agreement, have helped to create greater certainty in land use decisions through shared decision making between provincial and First Nations governments, and embody a commitment to continue working together.

Many First Nations governments are looking to responsible energy development projects for the same reasons as federal and provincial governments: as a

EXAMPLES OF FIRST NATIONS-PROVINCIAL-FEDERAL-LEVEL AGREEMENTS

The New Relationship (2005) between the Province of British Columbia and First Nations laid out an initial work plan to move toward "reconciliation of Aboriginal and Crown titles and jurisdictions" within British Columbia, and is based on "respect, recognition and accommodation of aboriginal title and rights." The parties agreed to "establish processes and institutions for shared decision-making about the land and resources and for revenue and benefit sharing, recognizing, as has been determined in court decisions, that the right to aboriginal title 'in its full form,' including the inherent right for the community to make decisions as to the use of the land and therefore the right to have a political structure for making those decisions, is constitutionally guaranteed by Section 35."

The Transformative Change Accord (2005), between the BC Government, the Government of Canada, and the First Nations Leadership Council, (First Nations Summit, Union of BC Indian Chiefs, and the British Columbia Assembly of First Nations) aims to "close the social and economic gaps between First Nations and other British Columbians" over the next ten years, as well as to "reconcile Aboriginal rights and title with those of the Crown," and to "establish a new relationship based upon mutual respect and recognition." The specific areas targeted for attention were education, health, housing and economic opportunities. Actions and processes undertaken should be guided by several principles, which include (but are not limited to) the following: recognition that aboriginal and treaty rights exist in British Columbia; belief that negotiations are the chosen means for reconciling rights; requirement that consultation and accommodation obligations are met and fulfilled; ensure that First Nations engage in consultation and accommodation, and provide consent when required, freely and with full information; and recognition that accountability for results is critical.

The United Nations Declaration on the Rights of Indigenous Peoples (2007) was endorsed by the Government of Canada in 2010. The Declaration is a document that articulates important development norms and standards with respect to indigenous people, and "emphasizes the rights of indigenous peoples to maintain and strengthen their own institutions, cultures and traditions and to pursue their development in keeping with their own needs and aspirations."

means to securing viable and sustainable economic futures for their communities, and as a source of revenue, while ensuring protection of the environment and health and well-being of those communities which may be affected. While no community will have the same approach to development, First Nations governments generally seek to be a partner with provincial/federal governments and industry in the development of energy assets on First Nations land. A positive relationship between a company and a First Nations government is often a component in gaining the social license necessary to undertake a project. Furthermore, many companies are entering into Impact and Benefit Agreements and Traditional Knowledge Protocols with First Nations communities to ensure that local communities benefit economically and socially from energy development projects.

Currently First Nations governments and community members have concerns about the potentially deleterious environmental effects of a leak or spill from new oil pipeline infrastructure to—and associated oil tanker traffic on—the West Coast. Consultation with First Nations, based on their Aboriginal and treaty rights and Aboriginal title must be seen as an important element of any discussion. The realities suggest that the risks and benefits of major energy projects will have to be shared amongst federal and provincial governments, affected First Nations governments and industry. Government and industry can improve the chances of successful energy projects by engaging early and often with First Nations communities and governments.¹⁴

Environmental Groups

Clearly, there are concerns about the potential environmental impacts of new infrastructure required to facilitate oil and natural gas exports to Asia, as well as related shipping in coastal waters, expressed by environmentalists and many First Nations. Such concerns about environmental risks and remediation

capacity, and more generally about responsible and sustainable development, deserve discussion and consideration.

There is a real and pressing need for leadership from environmental groups to propose ideas, including alternative options for the export of energy products to Asia, and to participate in the crafting of a Canada-Asia energy framework. This framework could help broker solutions for responsible and sustainable development at home, taking into account development risks, as well as help Asian countries shift to less carbon-intensive energy production to the benefit of all.

Advisory Council

Canada's deep trade and investment links with the United States have grown over more than a century, but particularly in the 65 years since the end of the Second World War. These links reflect shared experiences in war and peace, commercial opportunity, north-south infrastructure (highways, seaways, air connections, pipelines), educational partnerships, bilateral agreements (i.e. Auto Pact, NORAD, environmental agreements, the FTA, and the list goes on), as well as extensive people connections. In pursuit of diversification of our trade and investment towards Asia, little of this "infrastructure" is in place, nor do we have the luxury of a half century or more to develop it.

To "fast track" the deepening of the relationship between Canada and the key countries of Asia, we believe consideration should be given to establishing a **Canada Council on Asia** that would bring together Canadian and Asian leaders in business, academe, civil society and politics to provide wise counsel to the Government of Canada and Canadians on the Canadian diversification objective towards Asia in all its dimensions. Such a Council should be chaired by the Prime Minister, denoting the national interest in the exercise, and could be supported by a

¹⁴ *The courts have ruled that consultation, and in some cases accommodation, is the legal responsibility of governments.*

mixed secretariat comprising both government and non-government participants. It would be comprised equally of members from Asia and Canada, and should meet more than once per year.

3) Commitment to Developing the Necessary Infrastructure to Export Energy to Asia

Canada will require a diverse array of infrastructure in order to export energy to Asia. While oil pipelines from Alberta to the west coast are currently attracting the most public attention, it is important to recognize that infrastructure is required for the export of all kinds of products. A commitment to developing infrastructure for exports is a pre-requisite for closer economic ties with Asia, and for a diversification strategy that enhances Canada's security of demand. The Asia Pacific Gateway and Corridor initiative is an example of infrastructure investment that enhanced the competitiveness of Canadian ports and airports to transport goods and people across the Pacific. In the same way, a Canada-Asia energy framework must have infrastructure investment as an essential feature for energy trade with Asia to take place.

By using a broad definition of energy assets, the framework would also include investment in "soft" infrastructure for the export of energy expertise. This might include institutional partnerships, joint research, energy education and training programs, and pilot projects. There is obviously a link between hard and soft infrastructure, in the sense that physical investment often requires or leads to the sharing or marketing of expertise, which in turn requires new institutional arrangements for long-term partnerships.

Whatever the form of infrastructure investment that is required, it is essential that stakeholder interests are balanced so that projects can proceed expeditiously. Government and industry should encourage an airing of all potential infrastructure options for exporting energy to Asia, including pipelines and rail, so that

they can be discussed and considered in the development of a Canada-Asia energy framework.

One idea that may merit further study is a **public energy transportation corridor** that is constituted by government, regulated as a kind of public utility and operated by the private sector. This corridor could be some combination of pipelines and rail transportation for oil and gas to the west coast. Governments would have responsibility for setting and enforcing environmental, safety, and other standards dealing with involved First Nations on environmental safeguards and possible models for revenue sharing with operations in the corridor. Environmental groups would be consulted with respect to standards and appropriate remediation capacity. The private sector operators would in turn operate under the terms of the negotiated agreements and they could be selected through open RFPs. In this way, the onus to come to terms with the multiple interests that are affected by transportation corridors will rest with more than private sector companies, reflecting the national interest imperative.

Why a public energy transportation corridor? Equally, one could ask, why a St. Lawrence Seaway, a TransCanada highway system, or a national ports and airports system? Simply put, when do the external benefits of collective action outweigh individual interests and concerns, and how can one construct the collective action framework in a way that it minimizes risks, maximizes public gains and appropriately shares the benefits of invoking the national interest?

We believe that the potential benefits to Canadians from diversifying our trade towards Asia are enormous, but they are accompanied by real and perceived risks that may be better addressed through collective action rather than through a series of uncoordinated private sector initiatives. A public energy transportation corridor is one possible example.

CONCLUSION

IT IS IMPOSSIBLE TO IMAGINE a sustainable economic future for Canada without a much broader and deeper relationship with Asia. As the centre of the global economy shifts towards Asia, Canada will need to diversify its trade and investment linkages to ensure that we are benefiting from the massive opportunities these new markets offer.

We recognize that the potential of Canadian trade with Asia extends well beyond the energy sector and can include virtually every aspect of the Canadian economy. Nonetheless, energy trade is the strongest card we have to play in our fledgling economic and political relationship with Asia. Energy industries, broadly defined, are central to the Canadian economy and the potential for export of energy commodities and expertise is immense.

There is a compelling alignment of interests between Canada and the countries of Asia in terms of energy trade, and a genuine desire on the part of major Asian countries to source energy commodities and energy expertise from Canada. Even so, the opportunity is not open-ended. The competition to meet Asia's voracious demand for energy is fierce and first-mover advantages make it very difficult for latecomers to have a viable business case.

In all this, our risk may be national complacency, and our riskiest choice may be the status quo. Canada's energy approach should be more clearly based on our national interest, not a collection of private interests. National interest should be centred on ensuring that Canada is competitive on the global stage, and that all Canadians benefit. This means we have to be more clever hewers of wood and smarter drawers of water, and part of this innovation should be diversifying into new markets and new consumers in Asia.

There is therefore great urgency in forging Canada-Asia energy trade, and the starting point should be the establishment of a Canada-Asia energy framework that assembles the diverse energy interests across the country around a common purpose. The current project-by-project approach has become extremely contentious and is likely to become more so. This report calls for a fresh statement of the national interest in building a Canada-Asia energy relationship, and leadership to make it a reality.

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TASK FORCE MEMBERS

The Honourable Kevin G. Lynch (Co-Chair) is Vice-Chair, BMO Financial Group, a position he has held since 2010. He is also a Director on the Board of BMO's incorporated subsidiary in China. Prior to his retirement in 2009 from the Government of Canada after a 33 year career, Dr. Lynch served as Clerk of the Privy Council, Secretary to the Cabinet, and Head of the Public Service of Canada. He held a number of senior government positions, including those of Deputy Minister of Industry, Deputy Minister of Finance, and Executive Director (for the Canadian, Irish and Caribbean constituency) at the International Monetary Fund. He holds a PhD in Economics from McMaster University and honorary doctorates from seven Canadian universities. He is Chair of the Board of Governors of the University of Waterloo, Chair of the Canadian Ditchley Foundation; Vice-Chair of the Gairdner Foundation; a Director of the Perimeter Institute Board of Directors; a Member of the Accounting Oversight Council of Canada; and on the Advisory Boards of the Shannon School of Business, the Learning Partnership and the Samara Foundation. He was made a Privy Councillor in 2009, and received the Order of Canada in 2011.

Kathleen Sendall (Co-Chair) is a Director of CGG Veritas, a global provider of seismic services, and a Director of ENMAX Corporation, a vertically integrated electrical utility. Ms. Sendall is also a Director and Vice Chair of Alberta Innovates - Energy and Environment Solutions, a provincial corporation which supports research and innovation activities. Ms. Sendall has served in various advisory capacities to both federal and provincial governments in the areas of climate change, carbon capture and storage, environmental legislation, and Arctic foreign policy. She is also Chair of the Canadian Council of Academies Assessment Panel on the State of Industrial R&D in Canada. Kathleen Sendall was previously the Senior Vice-President of Petro-Canada's North American Natural Gas Business Unit, and was responsible for the company's conventional oil and gas production and exploration in North America. From 1996 to 2002, she held the positions of Vice-President, Engineering and Technology and Vice-President, Western Canada Development and Operations, responsible for the Western Canada natural gas business and conventional oil properties. Ms Sendall has received numerous awards and recognition and was named as a Member of the Order of Canada in 2011.

Dr. Wenran Jiang is the Project Director of the Canada-China Energy and Environment Forum and its annual conference since 2004. He also co-chairs Alberta Environment's Task Force on Asia, and advises the Alberta Energy on Asian market diversification. Dr. Jiang is a Special Advisor on China to the US and Canada based Energy Council, a Senior Fellow of the Asia Pacific Foundation of Canada, and a member of the APF's Canada-Asia Futures Task Force. Before taking a leave from his tenure at the University of Alberta, Dr. Jiang was the Founding Director (2005-08) and Inaugural Mactaggart Research Chair (2008-11)

of the China Institute. Traveling to all continents with field research, Dr. Jiang has written extensively on the rise of China and its impact on the Chinese political economy and the rest of the world, with a major focus on the shifting balance of power in the global economy, international finance and energy and resource sectors. The author of *The Dragon Returns: Canada in China's Quest for Energy Security*, Dr. Jiang is currently completing a book on energy security and Chinese foreign policy.

Peter Tertzakian is Chief Energy Economist and Managing Director at ARC Financial Corporation, a Calgary-based private equity firm that focuses on energy. He is also the author of two books, *A Thousand Barrels a Second*, *The End of Energy Obesity*, both of which consider the transformation of the global energy sector through economic, environmental and geopolitical pressures. Mr. Tertzakian began his career as a geophysicist with the Chevron Corporation, where he worked in field operations, seismic data processing and geophysical software development. He moved from the oil and gas to the financial sector in 1990 and has since been analyzing technology and energy-related businesses.

Grand Chief Ed John is a Hereditary Chief of Tl'azt'en Nation located on the banks of the Nak'al Bun (Stuart Lake) in Northern BC. Chief John has been a lawyer for 30 years, and holds an LL.B from the University of British Columbia, and an Honorary Doctor of Laws degree from the University of Northern British Columbia. He is currently serving his ninth consecutive term on the First Nations Summit Task Group (political executive), which is mandated to carry out specific tasks related to Aboriginal Title and Rights negotiations with British Columbia and Canada and other issues of common concern to First Nations in British Columbia. He is a former Co-Chair of the North American Indigenous Peoples' Caucus and participated in the development of the Declaration on the Rights of Indigenous Peoples which was adopted by the United Nations General Assembly in September 2007. He was recently elected Chair of the United Nations Permanent Forum on Indigenous Issues.

David Sawyer is Director of Climate Change and Energy for the Ottawa-based International Institute for Sustainable Development. He currently directs a program that aims to develop an energy strategy for Canada and North America that addresses climate change. David has produced a diverse and prolific portfolio of work specializing in energy and climate change, air pollutant economics, environmental and natural resource economics, and water and wastewater economics. He holds a Master of Development Economics from Dalhousie University.

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220 - 890 West Pender Street,
Vancouver, BC V6C 1J9

Tel: 604.684.5986 Fax: 604.681.1370

Email: info@asiapacific.ca

Internet: [**www.asiapacific.ca**](http://www.asiapacific.ca)