



BUILDING A LONG TERM ENERGY RELATIONSHIP

BETWEEN ALBERTA AND CHINA

PREFACE

This Report has been prepared at the request of Alberta Energy by the China Institute of the University of Alberta. Energy is the primary engine for the Alberta economy. For China, foreign energy inputs are an essential component of Chinese economic expansion and growth. This coincidence of economic interests is the foundation of this report.

The China Institute group that conducted the research and analysis was composed of five members: China Institute Director Gordon Houlden, China Institute Research Associate Mr. Ron MacIntosh, China Institute Assistant Director Jia Wang, Alberta School of Business Associate Professor Runjuan Liu, and China Institute Research Associate Yu Bao.

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Officials, both Canadian and Chinese, provided valuable insights, while energy industry leaders shared their expertise with the authors.

While this work was team-based, I take full responsibility for any errors.

The China Institute was created with provincial funding in 2005 to increase understanding of China and in particular China's impact on Alberta and Canada. It is our hope that this report will make a contribution towards that goal.

Sincerely,



Gordon Houlden
Director,
China Institute

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ABBREVIATIONS AND ACRONYMS

ACCTI	Australian Council for the Chinese Trade & Investment
ADS	American Depositary Shares
APFC	Asia Pacific Foundation of Canada
BCA	Business Council of Australia
CDB	China Development Bank
CIC	Canadian International Council
CNOOC	China National Offshore Oil Corporation
CNPC	China National Petroleum Corporation
DFAIT	Foreign Affairs and International Trade Canada
EPA	US Environmental Protection Agency
EU	European Union
FTA	Free Trade Agreement
IEA	International Energy Agency
JETC	Canada-China Joint Economic and Trade Committee
MLR	Ministry of Lands and Resources
MOFCOM	Ministry of Commerce
MOST	Ministry of Science & Technology
MOU	Memorandum of Understanding
NDRC	National Development and Reform Commission
NEA	National Energy Administration
NEC	National Energy Commission
NRCAN	Natural Resources Canada
PRC	People's Republic of China
SASAC	State-Owned Assets Supervision and Administration Commission of the State Council
SDPC	State Development Planning Commission
SINOPEC	China Petroleum & Chemical Corporation
SOEs	State-owned Enterprises
SPRs	Strategic Petroleum Reserves
TYF	Ten Year Framework
USDOE	US Department of Energy
5YP	China's 12 th Five-Year Plan

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CHAPTER DRAFT: A LONG TERM ENERGY RELATIONSHIP: RATIONALE

In a profoundly dynamic global setting, **Albertans and all Canadians find themselves at a challenging conjunction where energy has a critical and evolving role in the national and provincial economies.** There are challenges faced by our Asia Pacific economic partners in sustaining their growth and transformation if new and stable sources of energy are not found. There is a challenge faced by Canada in the energy field, one of uncertainty that the current dependence on one external customer, the United States, is viable. And yet there are also challenges closer to home in Canada in mobilizing our immense energy resources into a globalized economy, with the goal of maximizing the returns for Alberta and Canada. These circumstances are compelling, indeed daunting, yet they also present enormous opportunity for Albertans, and indeed all Canadians. In converting challenge to opportunity, Alberta and all energy producing provinces require a forceful, smart, and strategic response.

Even if there were no “Keystone problem”, all considerations would point to the powerful and increasingly urgent advantage in developing enduring well-targeted energy sector linkages with emerging Asian economies, above all, that of China. With the objective of building a long term energy strategy, this study will propose options for a viable, energy dialogue mechanism with China and to move that process forward quickly and visibly through a vigorous, results-oriented work program - one responsive to the priorities of both sides.

China and the opportunity it represents in the energy sector are here to stay. While probably

at less than the double-digit rates of much of the past 20 years, China’s GDP performance will continue to shine well into the future, even if there are “soft spots” and occasional downturns. In this context, the study will show that oil and other forms of energy are in high demand, and that this demand will grow substantially, well into the medium term and beyond. Even as China’s growth path matures toward a more domestic-driven demand, consumer-led and services- and knowledge-oriented, and even more “green”, economy, the demand for energy will remain at high levels, and indeed further expand. Equally long term will be China’s preoccupation with energy security, not least given that (a) their own production of conventional oil has plateaued and even begun to fall; and (b) a high percentage of current imports come from less-than-stable sources in the Mideast, Africa and Central Asia. Alberta’s stability is an integral part of our attraction for Chinese economic planners.

China’s energy demand is already moving to outpace that of the United States. According to Barclays Capital on November 23, 2011, China’s oil consumption by 2015 will be “significantly” higher than earlier International Energy Agency forecasts, surging 35 percent from 2011, as economic expansion spurs fuel demand. **The world’s biggest energy user may need 13.6 million barrels a day of fuel in 2015**, versus an IEA estimate of 10.5 million, based on income levels over the past decade. As for the long-run outlook, in 2035 China is expected to consume nearly 70% more energy than the United States, the second-largest consumer, even though, by then, per-capita energy consumption in China is still less than half the level in the United States (IEA World Energy Outlook 2011).

In 2010, the ratio measuring China’s dependence

on overseas oil reached 55.2 percent, bigger than that of the United States. This ratio will continue growing. **Canada's current supply profile with China as with the rest of Asia is microscopic**; for oil, it is an average of only 10,000 barrels/day on a spot sale basis given the limited infrastructure in place. For oil alone, therefore, even for Canada to provide a modest 3 percent of China's above-estimated 2015 daily demand, would involve a 40-fold increase over present average levels. We have great potential to grow this profile, particularly oil, but also potentially in gas, in renewables, and in a wide range of higher processed intermediate materials and technology and technical services.

Clearly the **most critical issue in rebranding Alberta/Canada as a credible long term supplier is progress on either or both the Northern Gateway and Kinder-Morgan pipeline projects, or on the various rail-based options that have been put forward**. It is essential that we are able, soon and persuasively, to present potential Asian customers with a sense of momentum that these projects will be tackled successfully, and that Canada's commitment to diversifying its customer base is real and, again, long-term in nature. It is also essential that we present Alberta and Canada as an energy-business friendly environment, with clear and consistent investment policies and regulatory frameworks.

The assessment offered is that, pending the development of needed pipeline and related infrastructure to the West Coast, **now is the time for Alberta to position itself in the highly competitive Chinese market. A dialogue mechanism engaging key players in Chinese centers of energy policy and among key procurement and investment decision-makers can play a critical role in this effort**. This is

particularly timely as the structure of China's energy policy governance is evolving. A new central ministry responsible for energy policy may emerge along with greater sophistication in managing China's overseas energy relationships. At the governmental level, other dialogue mechanisms with the US, Russia, Australia and the EU for instance, have taken shape. At the business level, China's state-owned enterprises (SOEs) are taking an ever more proactive role in positioning China abroad in quest of enhanced energy security, securing existing footholds in some locations, and positioning in others for future considerations.

Against this backdrop and the competition for attention involved, it will be **important to design a mechanism that goes beyond an annual forum for the exchange of views and information**. This has value, but it is suggested that the mechanism Alberta seeks be accompanied by a vigorous, well targeted work program featuring concrete projects and a capacity to address and follow-up on specific issues.

There are **issues in Canada that must be worked through in building a dialogue with China. We must ensure that consistent and clear messages are delivered and commitments made are followed through upon. In this connection, a viable federal-provincial *modus operandi* is essential**. While recognizing federal responsibility for foreign affairs, as well as specific areas of environmental assessment and foreign investment approvals, provincial leadership and expertise on resource development is clear. Alberta and other western provinces with energy interests in China and the rest of Asia Pacific must not only have seats at tables, but must lead this dialogue and its specific initiatives wherever feasible and desirable.

Above all, there is a **premium on speed and depth**

of engagement. There have been positive signs that the federal government wishes to engage China and the rest of Asia Pacific, including in the energy sector, to a greater degree than was evident several years ago. Yet despite increasingly favourable public opinion, Asia must compete with a variety of priorities among federal departments, whether in foreign relations, infrastructure funding, or even within the energy field. This situation was amply evident from the lack of follow-up on a plethora of energy sector agreements, including the umbrella MOU with China of 2001. Moreover, federal departments are also now saddled with huge new resource cuts are likely to slow the pace of all initiatives. Against this backdrop and **while maximum coordination is recommended and a strong federal presence helpful in Chinese eyes, leadership and initiative in respect of specific actions must come from the West.**

Our approach must be guided by a clear sense of the outcomes sought - outcomes at once realistic and yet ambitious and substantive. Within two years of the dialogue's commencement, we would look for key contacts to have been made in China, and to have capacity available to resolve problems and address new opportunities. We would look to put in place a range of joint projects of quality and mutual benefit – whether of a commercial nature or on a technical cooperation basis. We would enhance our intelligence capacity regarding China's energy directions and possess a better understanding of the risks going forward.

Enhanced awareness is a particularly key outcome – especially that awareness that enables favourable investment and procurement actions by Chinese partners. We would look to sharpen the brands of Alberta and Canada in China as a primary, rather than a residual energy supplier, as

evidenced by media coverage and public statements. A frequent message from industry during the consultations for this project was the need for government to work more closely with Chinese energy decision-makers. This would involve not only those inside Chinese ministries, but also those with the vast State-owned Enterprises (SOEs). The object would be to increase understanding of the Alberta energy industry and specifically of the federal and provincial regulatory environment that pertains to the Canadian energy sector in particular, and to foreign investment in general.

Ultimately, and at a concrete level, we would wish to see growth in energy sector commerce over time. We would wish to see increases in our sales of oil and other energy products, a rise in our share of the Chinese import market, a rise in our share of China's outward energy investment, and stronger proportion of sales made being in the form of higher processed commodities and high value technical services. These larger trends will depend on a range of macroeconomic and even geopolitical factors beyond our immediate control as well as on our own infrastructural challenges being overcome. Nevertheless, over time, the degree to which such growth is realized needs evaluation.

In pursuing this dialogue, **the report suggests the institution of an economic cooperation framework to guide and advance ties in the energy sector between Alberta and China - or alternatively between the parties of the New West Partnership and China.** This cannot be as well developed or legally binding as a formal, state-to-state formal trade agreement, but it would feature a broad instrument such as a Memorandum of Understanding (MOU), a governance process spelled out, and a rolling and substantive work program reflecting stakeholder input and a long

term, strategic vision of the direction we would like the Alberta-China energy relationship to point.

The report suggests **an approach blending a period of careful preparation in the first part of 2012 with a fast and visible start to the commencement of the dialogue process and the pursuit of early programming by early summer or fall.**

The **early staging would focus on in-Canada scoping work** including, as above noted, resolution and if necessary rationalization of the initiative with those energy-related initiatives that may be taking place at the federal level, for instance under the ambit of the existing Canada-China Strategic Working Group (SWG). It should also be supported by solid analytical work (preferably to include a professional market survey), and by a carefully mapped and prepared approach featuring stakeholder engagement in order to ensure broad public and industry support within Alberta.

This would be followed closely on by a series of working level consultations with Chinese officials to prepare the framework, design the mechanism in greater detail, and to develop the elements of its work program for the initial two years – incoming and outgoing missions, together with specific projects such as industry fora, regulatory and investment policy briefings, infrastructure site visits, technology seminars, educational initiatives, information products etc.

The **process would benefit from a visible and active launch scenario supported by first ministers and/or ministerial-level visits and exchanges.** A relatively early visit by the Premier or Premiers as early as the spring of 2012 could be used to announce the main lines of the dialogue initiative's direction or as a kick off to the first formal meeting of the mechanism established by

next Fall.

The fall of 2012 and the next 12-18 months would represent the crucial **initial phase of the work program**, a well-conceived blend of policy work and purposeful and concrete operational activities, with oversight provided by the mechanism established

As critical as the infrastructure issues are and as clear as it is that the United States will remain our principal energy trade partner, **there is every reason for confidence that Alberta, other western provinces, and Canada in general can succeed in developing a robust and rewarding energy strategy for China, one that reinforces the long run prosperity and diversification of western Canada's energy sector.** We have the resources, the industry talent, the international experience, and the business environment at home to make this work. China has the incentive and the will to work with all stable suppliers of scale in the energy field.

If well prepared and well designed, and yet quickly launched and followed up, **a dialogue mechanism of the nature described in this report will engage the key Chinese players on an ongoing basis, and thereby help convert this challenge to opportunity.** It will register a commitment to both Chinese and Canadians for the long term that is essential at this juncture. It will punctuate that commitment through decisions and action – above all, through a meaningful, results-oriented work program. And it will lend momentum to the long term strategy we need to build with China, as indeed in time with other major Asia Pacific economies.

TOWARD A LONG TERM ENERGY RELATIONSHIP: RATIONALE

The phenomenal growth and development of the emerging nations of Asia Pacific represents a fundamental shift in the global economy and one of a long-term, structural nature. In no sector is this transformation more profound and significant for Alberta than in the additional demand this expansion imposes on global supplies in the energy sector, above all the demand based in China. And yet the current level of commerce between Canada/Alberta and China in the energy sector is modest. Notwithstanding the recent spike in investment by Chinese enterprises, the energy dialogue between China and Canada/Alberta has grown slowly and in a very much *ad hoc* fashion. A number of government-to-government instruments have been put in place over the years, often in haste before high-level visits, and; most until recently have been inactive.

Canada's choices include being content to be passively affected by China's spiralling energy demand, adjusting and responding incrementally as needed. Alternatively, we can become more proactive, exploring and, where possible, seizing the new opportunities which are arising. For the former, we can take the higher global prices and profits generated by the impact of China and other emerging Asian economies on energy markets. For the latter choice, we become engaged in helping direct such developments to our best advantage - upstream, downstream and in the full range of related and supporting industries, as well as infrastructure for all of the above. Such a course would involve an aggressive effort to position ourselves strategically and competitively relative to these emerging patterns of demand as well as to new sources of finance, opportunities for

technology exchange, and partnerships abroad.

The argument made here is that the case is stronger and timelier than ever for a proactive effort to expand and diversify, by market and by energy product, Alberta's commercial ties with the energy sector in the Asia Pacific region – and to do so with the medium to long term in mind. The IEA World Energy Outlook 2011 projected that from 2010 to 2035, the percentage of “non-OECD Asia” energy consumption met by imports will rise from 50 percent to 80 percent. Instrumental in this effort and essential to its success over time is an ongoing dialogue with the right partners in Asia Pacific, above all and most urgently, in the People's Republic of China.

China is already on the cusp of replacing the US as the world's largest energy consumer and, indeed, by 2035, China will consume 70% more energy than the United States. As further detailed and broken down in the following section, China's imports now accounting for 45 percent of its petroleum usage, a level expected to rise to 80 percent by 2030 [see Annex China oil supply chart - IEA]. Chinese inputs are heavily dependent on unstable or potentially unstable regions such as the Mideast, Africa and Central Asia. With domestic production having plateaued and notwithstanding immense investments in renewables, Chinese oil consumption continues to grow at the rate of 3.4 percent per year. (Natural gas and coal have also demonstrated parallel, but distinct, growth potential.) The Chinese, when made aware of the magnitude of Alberta's energy supports, and the province's stability, find this combination alluring.

Even setting aside the issues, serious and consequential ones, surrounding certain pipeline projects in the United States as well as the economic and financial troubles facing our largest trading

partner, there are constants in the emerging environment:

- While the US will remain our principal market for energy products for the foreseeable future, **the relative scale and durability of economic growth in China**, and indeed the rest of Asia, is the **main game change in the global economy**— and one affecting world energy markets - even if Alberta does not sell China more than modest increments of oil in the next five years;
- A second is **China’s preoccupation with “energy security”**. This preoccupation is ongoing and will be long-term, not temporary, motivating its quest not only for alternative and stable sources of supply of oil (events in Libya and Sudan have helped focus Chinese minds on stability and diversification) but for enhanced diversity in types of conventional energy products as well as in new technologies to develop alternatives with China;
- A third is the **key role of energy in managing China’s transition from an investment and export-led economy** to one oriented more to a domestic demand-led, middle-class consumer economy; and one that is eventually more “green” and conservation-minded; and
- Fourth, and closer to home, there remain **critical constraints in our transportation infrastructure** – whether pipeline, rail, or port-based capacity - if Canada is to become a long term rather than a modest spot supplier of energy to growing Asia Pacific markets and with a brand and a profile recognized as such in the region. The costs of delay and inertia will become increasingly apparent.

For Alberta, the challenges are formidable and not without risks, yet the opportunities are immense. Indeed the costs of remaining at the margins are

likely to rise. Despite encouraging steps such as the Asia Pacific Gateway, improved federal relations with China (including greater ministerial engagement), and most recently, the move to join the Trans Pacific Partnership initiative, it is unclear our own federal government can or will choose to sustain its interest in growing our Asia Pacific ties. There are severe fiscal limitations affecting new initiatives. Natural Resources Canada and the Department of Foreign Affairs and International Trade area are already prone to certain degrees of organizational and cultural inertia, reinforced by the perennial reality of contending foreign policy and international trade priorities – or indeed energy and infrastructure priorities. The pressures of restraint only serve to aggravate the bias toward avoiding risk and standing still.

It is equally uncertain, despite some re-emergent curiosity, whether Asia Pacific will secure the sustained attention of commerce, industry and finance in central Canada. Nor is it clear, apart from the China Institute or Asia Pacific Foundation of Canada (APFC), that Asian energy issues capture significant “mainstream” attention from Canadian think tank or business organization analytical work. However positive, and persuasively so, on the expansion of ties with China and Asia Pacific, the recent Canada China Business Council/ Canadian Council of Chief Executives study by Wendy Dobson entitled **Canada, China and Rising Asia: A Strategic Proposal** focused more on trade policy and institutional matters, scarcely mentioning energy beyond references to Chinese interest in renewables. The Canadian International Council (CIC) 2010 piece **Open Canada: A Global Positioning Strategy in a Networked Age** helpfully featured the Asia Pacific region but treated energy, and the oil sands in particular, largely from a climate change perspective, though it did support

enhanced energy infrastructure in support of west coast energy exports.

In this environment and while noting improvements, sustainable political, business and policy leadership and initiative will be essential from Western Canadian provinces, and the energy sector.

Within China, the appeal of more readily accessible and better known, if potentially unstable, sources of oil in other nations will always present both competition and distraction while Canadian suppliers seek to establish in the Chinese market. This appeal strengthens to the extent these other sources feature lighter crude supplies in line with most of China's current processing capacity and where such sources appear to be less troubled by regulatory obstacles or by political inhibitions. Not unlike other sectors in China as indeed elsewhere in Asia Pacific, the Canada/Alberta brand in energy, while positive, is faint and its perceived focus and capacity largely US oriented – and not self-evidently about to change soon. The CIC study stated, however briefly but nonetheless eloquently, that “the creation of alternative markets to the US will send a signal that we are a true energy superpower with continental roots *and* global ambitions”.

China is not a panacea for all current difficulties and uncertainties facing Canada's energy sector. Given the scale of Chinese demand involved, the primacy of the US market, and the tyranny of distance, Canada is not likely to become a decisive source of oil, gas or other energy products for China. Based on available facts, however, a safe presumption is that, with a smart strategy and smart tactics, there is substantial and rewarding scope for expansion beyond what is at present a very tiny base, in oil, averaging more than 10,000 barrels per day in shipments of petroleum of oil

sands origin to China (largely destined for trial processing in Chinese refineries). Even if Alberta exports of energy to China were destined to remain modest, the “China factor” in global energy markets is such that it is in Alberta's self-interest to pay close attention to China, given China's capacity to move markets, and to sustain or dampen energy pricing, given China's global economic reach.

This study begins with an **economic overview the recent evolution of and outlook for the energy sector in China**. It outlines the scale of demand China represents in global energy markets – particularly for oil and gas, and the issues faced by China's growth that must be overcome if energy/ electricity shortages are not to become a bottleneck. It will, identify recent trends in Chinese overseas trade and investment - inevitably a key element in China's energy security in any scenario. In sum, we evaluate China's key preoccupations and objectives that will inform the construction of a long term energy relationship between Canada and China, with an early accent on the oil sub-sector.

We then summarize the **current structure of China's governance in the energy sector**, including government agencies and state-owned enterprises (SOEs), and also encompassing how China's international energy relationships are currently managed. Taking account of recent changes, this section will provide insights on the key responsibility centres and individuals Alberta should target for an expanded dialogue capable of dealing with a range of energy and related issues, including trade and investment in both directions but potentially covering other areas of economic and technical cooperation.

The proposal features a presentation of a **menu of options on how best to structure a bilateral energy sector mechanism**, one designed to

attract and retain the interest of at senior Chinese decision-makers. We deal with questions of other provinces' involvement perhaps through the New West Partnership vehicle. To ensure economy of effort and clarity of message vis-à-vis the Chinese, we will examine recent actions at the national level on Canada-China energy. For instance, we note the sectorial complementarities work of the Joint Economic and Trade Committee and the recent move to form a "Joint Working Group on Energy" as part of the high-level Strategic Working Group process). We will examine the nature of desirable stakeholder engagement and communications.

Answering the question of where we hope to be with China in two, five and or ten years time in the energy sector, we complete the study by presenting a **summary of key outcomes** to be sought and indicators by which success might be evaluated and, where appropriate, measured over time - whether in qualitative or, where possible, quantitative terms.

Finally, we set out a suggested **series of first steps to be taken** from the early working level preparations within Canada, through exploratory talks with Chinese officials on governance and early programming, to the actual launch of a mechanism at the senior political level. This section includes an outline of possible program content of the first 12 to 18 months.

Notwithstanding the hurdles and without minimizing them, there is every reason for confidence in Alberta's and Canada's capacity to succeed, and to do so on terms beneficial to both Canadians and Chinese. As shown by recent University of Alberta China Institute and APFC surveys of the Alberta general public and Canada's "Asia practitioners" respectively, we are enabled by increasingly favourable popular opinion surrounding deepened engagement with China,

including on critical investment and infrastructure issues. For Alberta in China, while the energy brand must be strengthened and sharpened, while the infrastructure issues must be advanced, and while Alberta's status as a "sub-national" entity imposes limitations in working with the PRC, we nonetheless offer China potentially attractive partnership. We offer political stability and energy business friendly policy. We have a strong financial system and corporate culture. And we bring excellent skill sets and international experience.

In this engagement, backed by ongoing, fact-based analytical work, the premiums are high on speed, depth, and commitment. The latter will help to offset the difficulties associated with Alberta's sub-national status, as well as any lack of specificity in what will presumably be a fairly generally-termed MOU. A short term, uni-dimensional approach will not suffice.

The case is powerful for a strategically-conceived, enduring dialogue with the Chinese on energy issues. Such an approach, accompanied by a lively and well-targeted program of initiatives and activities, will help position Alberta, and indeed Canada, closer to the mainstream of China's energy policy and planning apparatus and its key personalities. It will yield, better, real-time access to emerging China energy sector intelligence, and present us as a much earlier, front of mind option in China's procurement, investment and technology partner decision-making.

CHINA ENERGY: CURRENT SITUATION AND OUTLOOK

The construction of any long-term energy strategy with China must begin with an understanding of China's current energy demand situation and outlook. In that connection, such a strategy will require a solid grasp of China's priorities and planning in the energy sector, above all, its paramount concern for energy security. It will be seen from this summary discussion following that energy, including energy imports, occupies a critical role in sustaining China's economic growth. Security of energy supply thereby, represents an ongoing central feature in meeting objectives in industrial development and public living standards in China. This situation represents a substantial opportunity - and challenge - for Alberta and Canada.

CHINA'S OBJECTIVES:

With demand for energy outstripping the domestic supply, China knows it must secure long-term oil supplies from abroad – and that these supplies must be diversified given the risks of geo-political change. China's especially heavy reliance on Middle Eastern oil has become a cause of concern to the government. *The major objective for the Chinese government is to diversify its worldwide energy interests as a hedge against the potential disruption of vital supplies.*

While China's oil and gas potential is far from being known with certainty, and shale gas /tight oil on-shore, and off-shore production in areas such as the South China Sea, may boost future energy capacity, there is no sign as yet that these development will outpace growth in China energy consumption or stop China's rising dependence on energy inputs. As shown below, in any scenario, imports will continue to grow.

In the recently released "12th Five-Year Plan" (the key government document for the planning of the Chinese economy), the Chinese government clearly points out that domestic consumption will be a key driver of the country's economic growth in the near future. This strategy is the result of a weakening global economy, in particular the European debt crisis and the potential for a second recession in the US. The strategy also stems from, the pressure of growing domestic demand from public investment and rising personal consumption. All these have pushed China to transit from an export-oriented economy to a consumption-driven economy. This transition will lead to corresponding energy consumption to fuel its rapidly expanding industrial and commercial sectors as well as households experiencing rising living standards. China's energy consumption per capita in 2009 is only one-fifth of Canada's per capita energy consumption. If China continues its current industrialization process at the double-digit pace, the growth potential of energy consumption is huge.

How to feed this growing energy demand is an enormous preoccupation for Chinese policy makers. Currently, around 60 per cent of China's imported oil comes from Middle Eastern countries – notably Iran and Saudi Arabia, according to the IEA. Given the volatile political situation in this region, **and the potential for 2012 to be even more disruptive than 2011**, the Chinese government has heightened concerns over the security of its worldwide procurement of energy. Accordingly, China is beginning to put additional effort into diversifying its worldwide sourcing of energy into other countries, such as Africa, Central Asian countries and even Latin America.

In China's 12th Five-Year Plan (5YP), the Chinese government emphasizes clean energy sources to

ensure sustainable growth for the nation. In the “China 12th Five-Year Plan”, by 2015 the use of non-fossil fuels as a percentage of total energy use will increase to 11.4% and by 2020 the percentage of use of non-fossil fuels will increase to 15%. Also in the “China 12th Five-Year Plan”, clean energy, energy conservation, and clean energy cars are three key investment areas (among seven special sectors). Clean energy outlook and hydro power are likely to see strong growth. Nuclear power is also prominent on the government’s agenda. Expansion of clean energy sources – wind, solar and biomass – are the focus of massive Chinese research and investment, and are part of China’s broad environmental efforts. The emphasis on clean energy sources by the Chinese government opens more areas for Canada and China to collaborate, such as engineering services and clean energy technology. But the magnitude of China’s growing energy demand guarantees a major role for petroleum inputs deep into this century.

CURRENT SITUATION:

Chinese demand for energy has soared with an economy growing at a yearly average of 9 per cent over the past two decades. In 2004, China overtook Japan to become the second largest consumer of energy in the world behind the U.S., accounting for 12.1 per cent of global energy consumption. Broken-down, China accounted for 31 per cent of world coal consumption, 7.6 per cent of oil consumption, 10.7 per cent of hydro-electricity consumption and 1.2 per cent of gas consumption. With four times as many people as the U.S., China is predicted to overtake the U.S. to become the world’s largest energy consumer soon after 2010, according to the IEA. *The country’s steadily*

growing economy will be the principal driver of energy demand, forcing China to expand domestic power production and step up its global hunt to secure resources.

The majority of China’s energy (around 90 percent) comes from carbon-intensive fossil fuels such as coal, crude oil, and natural gas. China relies mainly on coal, its largest natural energy resource, for power generation. Coal provides about 74 per cent of energy produced in China. On the other hand, the country is the world’s largest coal producer, with nearly 12 per cent of total proven reserves, according to the IEA (See Annex 4). The country now imports about 45 per cent of its crude (See Annex 5). From 2004 to 2009, China’s energy imports increased 204%. During the same period of time, China’s domestic energy production only increased 36% (IEA Key Energy Statistics, 2011). This indicates that, with local resources diminishing, and with South China Sea sources longer term and uncertain at best, China must rely more and more on the global energy supply sourced outside of China.

Specifically, China’s energy demand can be summarized in the following five points according to a research performed by Crompton and Wu (2003):

- **First**, growth in energy consumption has been accompanied by a dramatic decline in energy intensity of use (i.e., energy consumption per unit of GDP) over the last two decades, partially the result of an improvement in energy efficiency and development of new materials.
- **Second**, the composition of energy consumption in China is unbalanced in comparison with other countries. This is highlighted by the large domestic market share of coal in China, although

its dominance has declined in recent years.

- **Third**, although China's energy consumption is large in absolute terms, energy consumption per capita is very small relative to that in the developed economies, implying great growth potential in energy demand in China, especially as personal incomes rise.
- **Fourth**, energy consumption in China is highly unbalanced between the rural and urban sectors as well as across the Chinese provinces.
- **Fifth and finally**, China's energy demand has also been influenced by the growth in demand for energy-intensive products such as automobiles and air-conditioners.

Given the surging energy demand for domestic consumption, the Chinese government has plans to ensure the strategic reserve of oil. The China National Oil Reserve Center, the administrative body of the country's national oil reserve system, was set up in 2007 and is responsible for building and making use of the country's strategic oil reserves. For security and sensitivity reasons, this center reports to National Development and Reform Commission of PRC, not the National Energy Bureau of PRC. By 2016 China's strategic oil reserve is expected to achieve 500 million bbls (Wu, 2011). (See Annex 2 for further details)

China's crude oil one-off processing capability ranked second in the world. According to Sinopec Group, China may increase its annual crude-oil refining capacity by 50% in the next 5 years to meet rising demand in the fastest growing major economy. Plants in China may be able to refine 750 million metric tons of crude oil annually by the end of 2015, compared with 507.5 million tons per year by the end of 2010. This estimate is consistent with the official Xinhua News Agency comment

in January 2011, as well as the report from International Energy Agency ("IEA") in June 2011, stating that China may increase its refining capacity 33 percent by 2016 from this year.

From a port transportation perspective, the country's port capacity is as much as 40 per cent greater than current demand, meaning that there are many idle facilities at small and medium-sized ports ready for future demand. As a result, since October 18 2011, the Ministry of Transport has put in place strict restrictions on approving new oil carrying capacity between coastal provinces.

OUTLOOK:

China's role in global energy is set to expand further. *By 2030, China will overtake the US to become the world's largest oil consumer (BP Energy Outlook 2030)*. In the long term, the IEA forecasts that China's total primary energy demand will grow by 2.6 per cent per year until 2030. Coal will continue to dominate the fuel mix. Primary oil consumption will increase by 3.4 per cent per year, driven largely by surging transport demand as the number of vehicles on the roads soars (See Annex 7 and 8 for more information on China's share in the global energy market and its pathway of energy consumption).

According to Barclays Capital on November 23, 2011, China's oil consumption by 2015 will be "significantly" higher than International Energy Agency forecasts, surging 35 percent from 2011, as economic expansion spurs fuel demand. The world's biggest energy user may need 13.6 million barrels a day of fuel in 2015, versus an IEA estimate of 10.5 million, based on growth in China's energy demand versus income levels in the past decade. In fact,

and tracking a trend observable through all of Asia's emerging economies by the IEA World Energy Outlook 2011, by the year 2030, 80 percent of all forms of China's energy consumption will have to come from imports in the case of Taiwan the figure is already 98%.

The growth is expected to remain concentrated in the industrial and transport sectors through 2020. Industrial growth slows post-2020 as industrial expansion becomes less energy-intensive and population growth slows. Transport will then be the dominant growth driver. The demand for new vehicles – by one estimate five million new vehicles a year being added to the roads each year – and other energy-consuming goods will support a 40 percent increase in diesel consumption to 4.8 million barrels a day by 2015 from 2011. The nation will also buy crude over the next five years for its above-noted strategic petroleum reserves when facilities are ready for filling.

According to the Ministry of Land and Resources of the PRC, in the next 20 years China's domestic production of crude oil will be 200 million tons per year and plateauing or even dropping. However, its natural gas production will grow rapidly from 280 million tons of oil equivalent in 2010 to 450 million tons of oil equivalents in 2030. Compared to growing domestic consumption, the growth rate on domestic production will not slow down China's growing reliance on energy imports (See Annex 6). In 2010, the ratio measuring China's dependence on overseas oil hit 55.2 percent, bigger than that of the United States. This ratio will continue to grow.

The U.S. energy department predicts similar high growth. It forecasts that China will import about 75 per cent of its crude oil by 2025 – nearly twice the percentage today – and consume about 11 per cent of the world's oil. The U.S. energy department also

sees *China's demand for oil almost doubling to 11 million barrels per day by 2020, with natural gas consumption tripling to 3.6 trillion cu ft a year and coal consumption surging 76 per cent to 2.4 billion tons a year.*

With the enormous scale of Chinese energy demand growth, China's depth of anxiety over security of supply, and the reality of long term dependence on external sources of conventional fuels Alberta, and Canada more generally, are presented with both an opportunity and a challenge. While we have done acceptably well in the export of ethylene glycol and other petrochemicals, our current place in China's aggregate energy demand, for oil for instance, is frankly microscopic – essentially composed of spot sales averaging only 10 kbbbl/day (Wu, 2011) against a total Chinese oil import demand as against the above-projected 11 million bbl/day by 2020. Our natural gas exports to China remain at zero, but have considerable potential, once LNG export terminals are in place on the West Coast.

In one sense, the good news is that we can only go up. Indeed, the spate of recent Chinese investments in our oil patch, particularly in the oil sands, indicates Chinese optimism that this will be the case in time. Either that or they expect, through these investments (including that put up by Sinopec for the Northern Gateway project), to position themselves to influence the market in this direction. Moreover, the current dearth of Chinese heavy oil refining capacity suggests we could, in theory and in practice, supply refined product, as well as expand sales of other higher processed products. Frankly, however, with the current transportation infrastructure in place, high-volume accessibility and delivery capacity is limited. Thus, near- to medium-term increases in this profile will be

incremental in nature and very minor in scale.

In any scenario a long term strategy will be needed, both within Canada and bilaterally with China, and a large part of this strategy will involve successful engagement with the key Chinese players. This will first require a closer understanding of how the energy industry in China currently operates, including recent and prospective changes.

KEY PLAYERS IN CHINESE ENERGY POLICY AND MANAGEMENT

As outlined above, the explosion of Chinese energy demand has had global implications as China looks to secure supplies for the future by diversifying sources and as China looks to alternative energy production and conservation technologies. This section will provide an overview of the structure of energy governance in China; examine how it has evolved in recent years and the manner in which overseas energy relations have been managed with selected foreign partners.

The general impression received is one of ascending priority for energy in China's public policy and also one of transformation, and consolidation in its governance structure as China attempts to deal with the centrality and complexity of energy security in assuring long term economic growth and successful transition to a domestic demand-led economy. This concern is further complicated by the rise of "new generation" concerns over environmental quality and the emerging strategic role of state owned enterprises (SOEs) particularly in the international field.

This structure and the changes that are afoot will have implications for how Canada/Alberta must manage its energy ties with China in the coming years and the key partners to engage. What follows is a summary of the major institutions in place at the present time and their principal mandates and specific functions:

THE NATIONAL ENERGY COMMISSION (NEC)

Established in January 22, 2010, is responsible for the overall coordination of energy policies in China. Its other functions include formulating new energy development strategies, evaluating energy security and coordinating international cooperation

on climate change, carbon reduction and energy efficiency.

Organizational Structure of the National Energy Commission

- Chairman: Wen Jiabao, Premier.
- Vice Chairman: Li Keqiang, Deputy Premier
- 21 Commission members: Ministers of 21 Ministries or ministerial level agencies
- Office of the NEC
- Director: Zhang Ping, Chairman of the National Development of Reform Commission (NDRC)
- Deputy Director: Liu Tienan, Deputy Chairman of the NDRC and Director of the National Energy Administration.

THE NATIONAL DEVELOPMENT AND REFORM COMMISSION (NDRC)

The NDRC, also described as the "Mini State Council", is responsible for the formulating and implementing of strategies of national economic and social development, annual plans, medium and long-term development plans. Its other functions include the coordinating of economic and social development; the carrying out of research and analysis on domestic and international economic situation; the putting forward of targets and policies concerning the development of the national economy, the regulation of the overall price level and the optimization of major economic structures; the making of recommendations on the employment of various economic instruments and policies; and the submitting the plan for national economic and social development to the National People's Congress on behalf of the State Council. Of particular interest in the context of this report, the

NDRC is also responsible for the National Energy Administration.

THE NATIONAL ENERGY ADMINISTRATION (NEA) (ALSO KNOWN AS THE “STATE ENERGY BUREAU”)

NEA was established in 2008 to promote institutional reform in the energy sector. As a vice ministerial level department under the National Development and Reform Commission (NDRC), the NEA is responsible for formulating and implementing energy development plans and industrial policies at the national level. According to the mandate indicated on its official website, the NEA is “administering energy sectors including coal, oil, natural gas, power (including nuclear power), new and renewable energy etc.”

We have received indications from Chinese contacts that a new Ministry of Energy could possibly be re-established in China as early as the 2012 National Congress of Communist Party of China (CPC). Other high-level contacts have indicated that such a shift would likely not be approved before the Fall 2012 National Congress of CPC and might not be formalized until the Spring 2013 NPC session. Currently, the NEA has less than 100 employees, and its head is at the Vice Minister Level, complicating efforts to bring cohesion to China’s national energy planning, given the size and profile of other state entities, such as the NDRC and the State-owned energy enterprises. If a new Ministry of Energy is created, it would almost certainly report directly to the State Council with perhaps a “dotted-line” to the NDRC to ensure policy coherence. The emergence of a Ministry of Energy would, we would expect, mean that this new organization would absorb the existing NEA and its staff. If this development does occur,

the new Ministry would very likely be playing a more important role in Chinese energy policy and management at the national level – and presumably in the management of China’s international energy relationships.

THE NATIONAL OIL RESERVE CENTER

The National Oil Reserve Center was established in December 2007 to serve as executive organ for the oil reserve system. It is responsible for constructing and managing oil reserve bases, making use of the oil reserves, as well as keeping an eye on the movement of global oil supply and demand. It was independent of the NEA at the very beginning, and become an agency affiliated to the NEA in 2008 (see annex 2 for further details).

THE STATE-OWNED ASSETS SUPERVISION AND ADMINISTRATION COMMISSION OF THE STATE COUNCIL (SASAC)

CNPC, SINOPEC and CNOOC, the three largest Chinese oil enterprises, are all state-owned holding enterprises and are directly under the supervision and management of State-owned Assets Supervision and Administration Commission of the State Council (SASAC). Authorized by the State Council, in accordance with the Company Law of the People’s Republic of China and other administrative regulations, the SASAC performs investors’ responsibilities, supervises and manages the state-owned assets of the enterprises, enhances the management of the state-owned assets, appoints and removes the top executives of the supervised enterprises, organizes the supervised enterprises to turn the state-owned capital gains over to the state and urges the supervised enterprises to carry out the guiding principles, policies, related laws and

regulations.

THE MINISTRY OF COMMERCE (MOFCOM)

MOFCOM is responsible for regulating the import and export market of petroleum oil as well as issuing the import certificate and crude oil import quota. Until now, CNPC, SINOPEC and CNOOC have the largest crude oil import quotas among all petroleum enterprises in China (See annex 12 for details). MOFCOM has the responsibility for discussions and negotiations with foreign governments on trade issues. This includes with Canada through the Joint Economic and Trade Committee as noted below.

THE MINISTRY OF LANDS AND RESOURCES (MLR)

MLR is responsible for the planning, protection and rational utilization of land, mineral and marine resources within China. Its other functions include the formulating of the technical criteria, rules, standards and measures for land, mineral and marine resources, the licensing of the rights to explore and to mine the mineral resources and the transferring of the rights to examine and approve blocks open to foreign investment. It is also in charge of the managing of the State Oceanic Administration and the State Bureau of Surveying and Mapping. Its responsibilities are domestic, not foreign, but it is a key interlocutor for foreign energy companies wishing to invest in China.

MAJOR CHINESE PETROLEUM ENTERPRISES

CNPC is China's largest national petroleum company and China's largest oil and gas producer and supplier. It owns the major oilfields, such as Daqing, Liaohe, Dagang and fourteen others, and is rich in oil and gas reserves. Its annual oil and gas production constitutes 70 to 80 percent of the total production of the three companies. **SINOPEC** is China's second largest national petroleum company and China's largest producer and supplier of refined oil products and major petrochemical products. **CNOOC** is China's third largest national petroleum company and China's largest offshore oil and gas producer. (See Annex 9 for detailed information)

KEY DECISION-MAKERS AND INTERLOCUTORS

I. LI KEQIANG

As the Vice Premier responsible for the overall management of the energy industry as well as the Vice Chairman of the NEC, Li Keqiang is the key person in Chinese energy sector and would be an ideal person for Alberta Premier, or the three Premiers of the New West Partnership to meet, although frankly meetings at this level are difficult to arrange. On November 7, at a meeting with energy ministers from Australia, Canada (Minister of Natural Resources, the Honourable Joe Oliver), South Africa and 18 other countries, Li Keqiang called on the international community to strengthen long term cooperation in energy resources. However, Li Keqiang is likely to become one of the two most powerful leaders in China at the 18th National Congress of CPC in Fall 2012. It is likely that a different Vice Premier will assume

responsibility for the energy sector at that time and that this individual will play a similar leading role on energy policy.

II. NEA

The NEA is playing an increasingly important role in formulating and implementing national oil reserve plans and policies. It is also authorized by the State Council to take the lead in launching international energy cooperation. Meantime, the director of the NEA is also Deputy Director of the Office of the National Energy Commission. NEA is the main body undertaking the daily work of the National Energy Commission. During the 5th China-EU Energy Dialogue in early November in Brussels, Liu Tienan, Director the NEA, represented the Chinese Government in discussions on energy issues with the EU Energy Commissioner and the Danish Energy Minister.

III. CNPC, SINOPEC AND CNOOC

CNPC, Sinopec and CNOOC import the most amount of crude oil. They can be influential in the national energy policy making process and have considerable autonomy on investment decisions. They have emerged as key players in the overseas aspects of China's energy security strategy (See annex 10).

The major roles of CNPC, SINOPEC and CNOOC in the Chinese Petroleum Industry

CNPC is China's largest national petroleum company and China's largest oil and gas producer and supplier with businesses covering petroleum exploration and production, natural gas and pipelines, refining and marketing, oilfield services,

engineering construction, petroleum equipment manufacturing and new energy development, as well as capital management, finance and insurance services. CNPC owns the major oilfields, such as Daqing, Liaohe, Dagang and fourteen others, and is rich in oil and gas reserves. Its annual oil and gas production constitutes 70 to 80 percent of the total production of the three companies. Furthermore, CNPC's business focuses on the upstream operation, that is, the petroleum exploration and production.

CNPC and PetroChina: CNPC is also the sole sponsor and controlling shareholder of PetroChina, the largest oil and gas producer and distributor in the oil and gas industry in China. PetroChina was established as a joint stock company with limited liabilities by China National Petroleum Corporation under the Company Law and the Special Regulations on the Overseas Offering and Listing of Shares by Joint Stock Limited Companies on November 5th, 1999.

SINOPEC is China's second largest national petroleum company and China's largest producer and supplier of refined oil products (including gasoline, diesel and jet fuel, etc.) and major petrochemical products (including synthetic resin, synthetic fiber monomers and polymers, synthetic fiber, synthetic rubber, chemical fertilizer and petrochemical intermediates). It is also China's second largest crude oil producer. Although the scope of its business covers oil and gas exploration and production, it mainly focuses on the midstream and downstream operations, that is, the producing and marketing of petrochemical products, based on the large number of refineries it owns.

CNOOC is China's third largest national petroleum company and China's largest offshore oil and gas producer in China. It is built upon synergetic

business portfolios including: upstream (oil and gas exploration, development, production and sales); mid and downstream (gas and power, chemicals, refinery, fertilizers); technical services (oilfield services, offshore oil and gas engineering and construction, logistics services); financial services; and alternative energy. CNOOC mainly focuses on the exploitation, exploration and development of crude oil and natural gas offshore of China.

Besides the above mentioned three largest State-owned petroleum enterprises, the role of **SINOCHEN** is also worth mentioning. As one of the first multinational corporations established in China, SINOCHEN has been playing a key role in the import of petroleum production, and has become the fourth largest oil company as well as leading chemical service provider.

In our consultations with Alberta's energy industry, we heard comments that the sheer size of China's energy SOEs makes increasing the SOEs' understanding of Canada and Alberta's energy sector problematic. We also heard views expressed that the offices of China's energy SOEs in Calgary would benefit from enhanced local decision-making capacity and by hiring additional knowledgeable Canadian personnel.

ENERGY BUSINESS WITH CANADA

Since the establishment of diplomatic relations between Canada and China on October 13, 1970, the relations between the two countries have made dramatic progress. Exchanges between the two countries increased, including frequent high-level exchanges. Business cooperation between the two countries has further deepened and two-way trade and investment has continued to grow and diversify.

However, although the two countries have signed a great many agreements, such as the Memorandum of Understanding between the State Development Planning Commission of the People's Republic of China and the Ministry of Natural Resources of Canada Concerning Cooperation in the Field of Energy signed in February 2001, many of them seem to be inactive.

A number of energy-related visits, missions, events and specific initiatives have taken place but typically they have not been purposeful or structured. While Canadian trade commissioners posted in China, working with Alberta offices, continue to play a vigorous, ongoing promotional role in the energy sector, specific follow-up on the agreements and missions *per se* has all too often been irregular.

Nevertheless, some recent energy-related activities, such as under the Strategic Working Group and Joint Economic and Trade Committee processes, have showed recent signs of forward movement, although it is as yet difficult to point to specific or concrete outcomes on energy. Positively and coincidentally, in the wake of the Keystone controversy, Natural Resources, Minister Oliver visited China in November 2011. Reinforced by comments by the Prime Minister at the time of the recent APEC meeting in Hawaii, the Minister now appears to have taken a personal interest in moving the energy agenda forward, including the associated infrastructure issues. A senior Chinese official has told us that perhaps a Canada-China energy dialogue should be established at the Ministerial-level (i.e., federal).

Both the increasingly important role the NEA plays in coordinating the national energy policy and the greater possibility of re-establishing a Ministry of Energy show that the Chinese government intends to centralize, or at least consolidate to a greater

degree, the management of energy sector, including those SOEs which had been given significant autonomy in the past decade.

At the subnational level, there are only a limited number of **provincial energy bureaus and/or province-owned energy investment groups** that have been established within certain provincial governments to coordinate the management of energy issues. However, their power is limited. In addition, there is a “provincial petroleum administration” in each of the provinces which own large-scale oilfields; however, they are all affiliated to the CNPC, without being subject to the jurisdiction of any provincial and/or municipal governments. In this sense, the provincial governments have very limited power in terms of managing the energy sector. As noted earlier they do not possess their own import quotas nor exercise substantial authority over foreign investment policy inside China.

It is still not very clear what kind of relationships a new Ministry of Energy might eventually have with the SOEs, should this development go forward. Currently, the head of the NEA is Vice Minister-level official, the same as those of the three largest State-owned petroleum enterprises.

CHINA'S ENERGY DIALOGUE MECHANISMS WITH OTHER COUNTRIES

In order to propose a viable, energy dialogue mechanism with China, it is necessary to review existing energy dialogues between China and other major countries in order to learn from other countries' experiences. In this section, we provide a brief overview of the key energy dialogues between

China and four major partners, such as EU, Australia, US and Russia. Unsurprisingly, China already has at least one main energy dialogue with each of the four. (More detailed information can be found in an annex to this report)

CHINA-EU:

China-EU Energy cooperation has been in existence since 1994 and is one of the earliest Sectoral Dialogues between the European Commission and its Chinese partner in EU-China foreign relations. Two main bilateral forums on energy allow for close cooperation. One is the EC-China Biannual Energy Conferences between the Directorate-General for Energy of the European Commission and the Chinese Ministry of Science & Technology (MOST). The other is the annual EC-China Energy Dialogue between the European Commission and the National Energy Administration (NEA) of China launched in 2005. In addition, energy issues are also being discussed between Heads of States at the EU-China summits, which take place once a year.

CHINA-AUSTRALIA:

China and Australia energy trade focuses on liquefied natural gas (LNG) and coal (in massive quantities). A principal mechanism for the cooperation on the energy front is the Australia-China Bilateral Dialogue Mechanism for Resources Cooperation. It was established in 2000. Its purpose is to facilitate the exchange of information to gain a mutual understanding of energy and mineral resource policies and issues in respective countries; promote trade and investment to enhance bilateral cooperation and to stimulate bilateral commercial relationships for the benefit of Australia as well as

China.

CHINA-US:

Energy cooperation has become one of the important contents in bilateral relations between China and U.S., as well as one of the key topics in the semi-annual China-US Strategic and Economic Dialogue. In June 2008, China's Vice Premier Wang Qishan and US Treasury Secretary Henry Paulson participated in the establishing of the Ten Year Framework (TYF) for Cooperation on Energy and Environment. Under this framework, the two countries agreed to strengthen the exchange of information and best practices in order to promote innovation and develop solutions to the environment and energy problems.

CHINA-RUSSIA:

China and Russia have been working together in several energy projects since early 1990s, and their strategic partnership in energy sector has been strengthened by the regular China-Russia Energy Dialogue. As China and Russia share a common border, oil and gas pipelines need not run through any third country. Good state-to-state relations ensure for long-term cooperation in oil and gas between China and Russia.

MODELS OF A MECHANISM

The principal objectives of having a mechanism in place between Canada/Alberta and China in place and that would also inform its constitution and *modus operandi* includes:

- the establishment and maintenance of a forum of contact with key Chinese policy and decision-makers that has not, until now, existed on an ongoing basis;
- the enhancement, thereby, of the profile of the Canadian/Albertan energy sector in our relationship with China including a graduation in Chinese perceptions of Alberta from that of a residual, spot supplier of oil, toward that of a stable partner of value featuring a range of mature and ongoing energy sector linkages;
- the acquisition of meaningful intelligence on opportunities and risks that would not otherwise be obtained or identified as easily;
- a forum for the generation of concrete and mutually beneficial projects in the energy sector – directly or indirectly;
- the introduction of capacity to resolve or at least refer problems that may periodically arise; and
- a means of assurance provided that this relationship will assume a long term and strategic, as opposed to *ad hoc*, character in each side's energy sector planning.

A mechanism and its attendant programming would be designed to attract and retain the interest of Chinese officials at the most senior effective level possible, in part by being demonstrably helpful to their strategic priorities – above all, their concern regarding energy security. A mechanism will be a device through which we can more effectively compete for official Chinese attention, at the same time, again and to reinforce, branding Alberta/

Canada as a credible, reliable and stable energy partner well into the future. In conjunction with any efforts made at the federal level, an Alberta-led (potentially also West Partnership) mechanism will help bring Canada/Alberta into line with other major players in the market who already have functioning energy dialogues in place.

For the Canadian side, its operations and its work would have to be defensible and indeed meaningful to Canadian stakeholders, by remaining responsive to their own priorities and capacities, engaging them directly wherever possible.

When it comes to energy, not all Canadian provinces are equally endowed, and no other province has the combination of quantity and dependence on petroleum as is the case with Alberta. If a New West Partnership approach were to be adopted, a growth emphasis on LNG, and coal (BC), and potentially uranium (Saskatchewan) might be needed.

Care will be required to avoid duplication and confusion in relation to other energy dialogues in place at the national level. For instance, and as noted earlier, under the ambit of the Canada-China Strategic Working Group (SWG), the a Joint Working Group on Energy that has been agreed in principle to go forward under the leadership of Natural Resources Canada (NRCAN) and the National Development and Reform Commission on the basis of an MOU originally signed in 2001. There have been several false starts in setting dates for the first meeting; the latest involving February 2012 now appears also to have fallen through. Notwithstanding that, NRCAN is in the process of planning internal consultations, including with provinces, on priorities for the agenda *inter alia* updating the 2001 MOU. In addition, there is work commissioned with internal consultations

already in progress, on “sector complementarities” and under the Canada-China Joint Economic and Trade Committee (JETC) that is already in place led by DFAIT and the Chinese Ministry of Foreign Commerce (MOFCOM). This will cover energy to some degree.

Bilateral work at the national level with China on energy has had a mixed and certainly very slow-paced track record over the years. Regrettably, like other MOUs and arrangements in this and various sectors signed during high-level visits, Canada appears to have the reputation, fair or unfair, in China of not following through. Moreover, it is far from clear, even on this occasion with recent ministerial level interest and enthusiasm, what resources cash-strapped Ottawa departments will be able to bring to bear and sustain on these most recent initiatives. Nevertheless, it will be important to rationalize any initiative undertaken by Alberta and other provinces with these newer dialogues and their associated work programs agenda seeking avoiding overlap and pointless competition wherever possible.

In addition, it may be necessary to demur, if not resist clearly, any pressures to consider conducting this mechanism on a Canadian to Chinese province basis. Some cooperative ventures may be possible and even attractive. However, as we have seen, Chinese provinces clearly do not have a policy role on procurement or investment decision making comparable to the central government.

Expectations must be at once ambitious yet realistic, particularly for a province-led initiative such as this one is suggested to be. This is true, even in a sector where provincial leadership on resources, at least on the Canadian side, is well-established. This balance should inform the depth, speed and mandate among options available for the construction of the

mechanism and the early development of its work program. On a scale of ambition, the options might be presented as follows, noting that some blending and staging of certain elements in all three options might be possible or even necessary over time:

OPTIONS:

1. The most advanced form of an expanded energy sector relationship would be a **formal agreement governing energy sector commerce** between our two jurisdictions. This would contain not only detailed understandings respecting the governance and operations of the mechanism but, potentially, legal obligations. While we would be unlikely to include explicit commodity supply arrangements as in the China-Russia arrangement – in effect managed trade, whereas Alberta’s energy trade must be market driven, the text would involve specific trade and investment provisions, possibly even of a preferential nature. It would also potentially include a formal dispute settlement mechanism. It is most likely that such an arrangement would have to be conducted at the federal level – and therefore would take considerable time to frame and negotiate, taking account of current obligations of both parties under international trade law and, in Canada’s case perhaps, relative to our energy sector obligations under NAFTA. It would likely be subject to review by both WTO and NAFTA parties for consistency with such obligations. If this more advanced model were possible, it would definitely “institutionalize” the Canada-China energy relationship and give our commercial framework in the energy sector a high measure of stability and predictability. The downside is

the time necessary to negotiate relative to the urgency of positioning now, the uncertainty of the depth of Alberta's involvement, and the need to mix obligations of a codified nature with a host of more cooperative (and voluntary) activity provisions – which may prove awkward at least initially. It would be necessarily largely “public sector” based, on both sides. A specific Alberta focus might be lost and, with that loss of focus, greater difficulty is shaping the agenda in useful directions.

2. A less advanced but nonetheless substantive approach would involve an **economic cooperation model** for the energy sector between Canada/Alberta and China. More along the lines of the arrangements China has with the US and the EU, this model would also involve an agreement but one less formal and legally-obliging in nature. It could assume the form of a “memorandum of understanding (MOU)”, or equivalent document, but one with specific understanding and commitments. The MOU package would include a detailed yet not overly cumbersome framework of governance for the mechanism. Its *modus operandi* would most likely be by consensus and with work advanced through chairmen's statements or agreed, but records of decision. The MOU would outline how the mechanism's work would be managed over time, for example, a mutually agreed program of work, perhaps over rolling periods of three years but renewable and adjustable by the mechanism on an annual basis, including policy initiatives (including problem solving), joint energy projects launched, expert exchanges, and other cooperative activity workshops/ websites etc. This would more assuredly enable

Alberta leadership or at least a very prominent Alberta role, and could accommodate some stakeholder involvement. However, it would likely require a measure of federal participation. Particularly if the aforementioned SWG and JETC initiatives were to gel, it would need to be well coordinated,

3. A third option, which may also be conceived as a “path-breaker” option, would be a more **“best efforts and intentions” instrument, perhaps in the form of a joint statement or even simply an exchange of letters**. This model would still be an advance over the present situation in that the energy sector would be an agreed focus in the overall bilateral relationship with China and information and views would be regularly exchanged. Joint projects and initiatives could be pursued, with understandings as to their conduct, though perhaps not as a more formal work program as in the preceding options. In the early stages of building a long term engagement, a less “*directed*” approach may in fact be more desirable until confidence and familiarity is established between the parties; hence, the path-breaker mode. It may also prove a prudent, pragmatic approach while waiting to see whether or to what degree the SWG or JETC-related work takes hold – and how well such initiatives respond to Alberta's and other provinces priorities and desired timelines. Some elaboration or understanding regarding the structure of such a dialogue could occur in time, but there would be no obliged review of progress on specific measures or projects undertaken. It is unlikely that a trouble-shooting or problem-solving facility could be undertaken, although it is possible this could evolve over time – and may indeed have

to if senior level and stakeholder interest on both sides is to be sustained.

Some final issues of consideration would be **the “inside-Canada” dimension would be organized.** Ultimately, these decisions are for the Canadian and Albertan governments to determine, but, in Alberta’s own interests, certain questions will need attention to ensure clarity and indeed utility vis-a-vis the Chinese side, and in the service of keeping agendas appropriately focused and manageable:

- The **federal participation** element, including Natural Resources Canada, DFAIT and the Canadian Embassy in Beijing, must be dealt with early. Bearing in mind relative federal and provincial jurisdictional responsibilities in the energy sector, work will have to proceed with clear understandings of role and transparency. The manner of operation in place should entail no surprises for either the federal or provincial sides, and minimal prospects of self-defeating confusion on messages delivered to the Chinese and, as in the above discussion, obligations undertaken in relation to national government-led dialogues which are in place;
- The addition of **other provinces, specifically** such as BC and Saskatchewan, could be explored in the context of the **New West Partnership** dimension as well as planned visits to China at the premier or ministerial level. Insofar as the operation of the bilateral mechanism is concerned, the ongoing feasibility of such a structure may largely depend on the envisaged degree of focus on oil, or oil and gas, or on the mechanism’s agenda;
- The mechanism, particularly at the preparatory phase, but also in some areas of work program execution would benefit from an **interdepartmental and/or intergovernmental**

steering committee – as well as **potentially** the institution of a dedicated secretariat function as a point of coordination and communication;

- For the above reasons and while seeking to keep mechanism delegation sizes manageable and messages thereby focused, there is merit in looking at a **two level motif for the mechanism.** On one hand, a senior level executive body to handle bilateral talks on policy and future directions of the mechanisms would be needed – as above, in some measure of association with the federal level. On the other second level, we would have more inclusive advisory body involving working level officials and specialists from both sides, including industry and other representatives, on specific operational or technical elements of the work program.
- For the tasks of planning and preparing for mechanism business and follow-up, it may be useful to experiment with a **similar, two-tier structure within Canada**, especially if we are looking at an approach with a New West Partnership dimension. For example, there might be:
 - an inner ring of officials and perhaps selected stakeholders - people who will actually staff the bilateral mechanism meetings, to set priorities and agendas;
 - an outer ring instituted for more broadly based stakeholder input and expert advice as well as some for delegated aspects of the execution of mechanisms follow-up.
- This will better ground the mechanism’s work in industry and community knowledge and realities – upstream, downstream, and on issues of infrastructure, finance, distribution, research - and thereby act to sustain interest and support for

its work.

It is the assessment of this study that the second option, an economic cooperation model, for the bilateral mechanism would be the most suitable – a realistic yet substantive aim, albeit one well prepared and supported by the best available stakeholder and expert advice. It is also our assessment that issues of federal participation and other province involvement need to be clarified as soon as possible, along with decisions on supporting infrastructure, all with a view to ensuring manageability of the process and to the assurance of clarity and authoritative credibility of messages and priorities conveyed to the Chinese side.

If the objective is the establishment of a long term energy relationship with China, and with the development of a focussed energy sector bilateral mechanism as an important instrument in the furtherance of that objective, then what would success look like?

As suggested in the final section, there will certainly be substantial investments of staff time, travel budgets, meeting expenses, professional services, and some public expenditure in support of specific projects in this enterprise. These investments must be defensible in terms of energy sector and broader economic, infrastructural and other agendas being moved forward in Canada and with their long term benefits progressively evident and substantial. In short, there is risk, and that is to be expected, but there must also be reward.

In setting realistic and appropriate indicators or metrics – quantitative and qualitative, we need to start with a perspective of where we would like the energy relationship to be with China in, say, 2 years, 5 years, and 10 years and beyond. Ultimately that future would involve higher levels of energy exports specifically but not exclusively oil and gas. This would include, in turn, a sizeable and rising share realized by Canadian suppliers of China's dramatic additional aggregate demand for energy that is so widely projected and documented.

It is a future in which we would wish to see higher levels of Chinese investment in Canada's energy sector - including an observable increase in our share of China's outbound investment. It would feature expanded markets in a growing Chinese economy for higher processed intermediate goods based on our oil and petrochemical sectors and also observable gains in sales of high level Canadian technology through technical service contracts and licensing in the Chinese energy sector, conventional

and renewable, as well as in Chinese projects in third countries.

The above is at the macro level. Indeed these trends must be monitored over the longer term yet recognizing that, in shorter time frames, they are prone to the vicissitudes of commodity price and exchange rate movements, as well as issues of regional stability and internal policy shifts – in other words, a number of factors beyond our control. Even events that have no direct connection to Canada or China, such as the tightening Western sanctions on Iran, could at some point indirectly affect the operations of Chinese SOE's in North America.

In the shorter term, answers on how the mechanism *per se* could realistically define success - how its performance would be measured in other words, may be more indirect and probably less “quantitative” at least from a cause-and-effect angle. Nevertheless, some indicators do suggest, indicators (petroleum metrics) that can be refined over time. For instance, and again with the perspective on **where we would like to be:**

- Canadians and Chinese shown to be better sensitized than previously was the case on each other's energy challenges and capacities;
- Enhanced bilateral capacity to identify opportunities, resolve problems, and settle disputes in a more accurate and timely fashion;
- A number of Alberta-China joint projects put in place;
- Key contacts made in the China's energy sector; and problems resolved or referred for resolution by appropriate authorities;
- Progress registered and tracked in the degree of public acceptance of China's role in our energy

resource development and interest registered in new business development;

- In public statements and in projects undertaken, evidence over time of Canada's higher profile and preferred status in Chinese overseas investment and sourcing decisions;
- In Chinese general media and trade press and in other public discourse, increased coverage recognizing Canada's excellence in technology and services for the energy sector, both conventional and renewable;
- As a result of mechanism deliberations, economic and political risks are earlier identified and better assessed, with mitigation measures put in place responding to possible legal, institutional and financial hurdles with attendant improvements in planning and resource allocation;
- Indications that the mechanism and outreach and engagement of stakeholders and the general public has served to highlight the advantages of China/Asia Pacific ties, and helped catalyze the building of public knowledge and domestic consensus on such issues as infrastructure development, smarter and more streamlined regulatory procedures, and specific processes for addressing, for e.g., First Nations, environment concerns

To enhance accountability and maximize impact, an independent and professionally credible process should be put in place to monitor trends, favourable or otherwise, in these and perhaps other indicators, with suggestions advanced for mid-course corrections and refinements in our strategic approach as required.

An effective and well-prepared program of “first steps” for the mechanism envisaged and the work program established will be essential in maximizing its success in building a long term energy relationship with China.

The fact is that most bilateral mechanisms have never proven quite as successful as had been hoped at their inception, however much fanfare was generated at the outset. Most mechanisms lose momentum after two or three years following the original launch. Meetings tend to become more irregular and their levels of representation tend to drop. Inter-sessional work commissioned eventually reverts mainly to Embassies to pursue and generally the extent of involvement in capitals diminishes over time and resource allocation eventually drops. By their nature in the passage of time, mechanisms are further vulnerable to changes of personalities and priorities at the political or senior manager levels in lead ministries. This experience, often aggravated by the transient communications pressures of high-level visits rather than an approach reflective of considered strategic vision or planning, has been all too common in the history of Canada’s bilateral relationships – including with China.

Those mechanisms which have successfully lasted through the years, usually those established through a fairly formal bilateral agreement, have had to accept becoming primarily an annual, or even less frequently held, forum for the exchange of information and views. Bringing officials of seniority together on key issues does have intrinsic value, and is arguably better than not doing it, but such mechanisms are only occasionally decisive in forcing action on specific policy issues or catalyzing specific project undertakings. They are typically much less adept as tools in building

long term relationships and visions for future development.

The reasons for this are many-fold and an understanding of past pitfalls is essential in designing an approach with optimal profile, with robust momentum, problem-solving capacity, concrete projects, and sustainable or renewable constituent buy-in, with the clearest possible sense of outcomes sought and with the best chance of ensuring for the mechanism medium to long term and mutually-beneficial success.

Previously we had addressed some broad models for a mechanism based on mandate. In this chapter, and based on our assessment that an “economic cooperation model” is most ambitious yet realistic, ideas will be set out for early operational approaches to a mechanism which in our view are critical to its eventual success or otherwise.

It will be an approach that should be well supported by analysis of both China’s priorities and Canada’s capacities as well as all economic, legal and institutional hurdles to be overcome. It will be one as a result, with agendas kept smart, fresh and relevant reinforced by engagement with stakeholders and good interactive communications with wider interested publics in both Canada and China. The mechanism will involve dialogue but not only dialogue; it will be driven again by a clear and reasonable sense of the outcomes sought with China in the energy sector.

For purposes of discussion, the process envisaged here may feature the following components (also summarized in accompanying box:

THE WAY FORWARD AT A GLANCE

IN CANADA SCOPING PHASE

January-March 2012

Clarification of federal plans

- Resolution of any areas of overlap; duplication with provincial action

Establishment of secretariat

- Alberta-based or New West Partnership?

Industry forums

- Scope market prospects; domestic constraints; and priority issues with China

Cabinet clearance of way forward: Alberta or NWP

- Basic priorities; objectives; initial negotiating position

THE INITIAL ENGAGEMENT PHASE

Late Winter/Early Spring 2012

Outgoing mission to China led by senior working level

- Meet with key players on Chinese side
- Outline governance framework; work program priorities

Incoming senior working level mission

- Meet with key Canadian players
- Site visits/industry/regulatory/infrastructure briefings
- Continue/conclude discussions on governance; initial work program

THE LAUNCH SCENARIO PHASE

Late Spring/Summer 2012

Initiative announced by Premier(s)

- During potential visit to PRC
- Or alternatively on occasion of incoming mission noted above
- Or alternatively, if Premier does not go, during spring ministerial visit to China

First meeting of mechanism and establishment of initial work program

- Premier(s) or energy minister(s) to attend opening session

Possible high level visits to signal way forward on energy

- Premier Redford visit to China
- Visit by Alberta's or all western provinces' energy ministers

THE WORK PROGRAM GETS UNDER WAY

Fall 2012-Spring 2014

For example: Problem solving meetings; industry workshops on specific challenges; energy “futures” conferences or workshops; energy/environment forum; regulatory/infrastructure briefings; science/technology projects;

educational initiatives; human resource exchanges; public education/communications products.

A PREPARATORY SCOPING STAGE IN CANADA – JANUARY- MARCH 2012

To expand on the foregoing, and acting on the advantages of sound preparation and planning to ensure the best chance of success of a bilateral mechanism, these are the following elements which might be considered in the ramp-up to meetings with the Chinese side:

- **Consensus-Building:** agreement on key short, medium and long term objectives for our energy ties with China;
- **Role Definition:** To clarify operational and jurisdictional issues; for e.g., role of various ministries, other provinces and the federal government;
- **Team-Building:** Steering Committee and secretariat established-and;
- **Pre-Planning:** Designing the agenda and format of the mechanism

As part of this scoping process, some specific actions to be considered at this stage would be:

- Supported by expert input, a **select “brainstorming seminar”** convened by the China Institute or other institutions. This would survey domestic and bilateral models as well as **clarifying legal and institutional issues**, including interprovincial, federal-provincial, regulatory bodies and any NAFTA dimension;
- Supported by a professional market survey and other available analytic material, a two-day **business workshop on Asian energy trade prospects**, perhaps again in association with the University of Alberta China Institute or, or other institutions; and

- Taking account of the output of these sessions and progress made on clarifying the federal role, **an in-Canada preparatory session** among government authorities, *inter alia*, refining priorities and agendas for the mechanism for pursuit with the Chinese side in the first two to three years of the mechanism’s life, developing ideas on the governance mechanism best equipped to move forward; and dealing with practical organizational and financial issues - including a secretariat

INITIAL BILATERAL ENGAGEMENT PHASE – MARCH TO JULY 2012

Again in line with the objective of sound advance work in assuring success for the first meeting and rapid momentum thereafter, this phase would represent a continuation of the in-Canada preparatory work. The difference is that it would involve **informal contacts at working level with the Chinese**, that is, before the (more) formal mechanism is triggered.

Assisted by Alberta offices in China and by the Canadian Embassy as required or beneficial, this phase featuring an exchange of informal missions as below, would serve to initiate dialogue, educate players on both sides and function as a realistic, winnow out the issue mix and operating modality questions as well as serve as a forum for discussion of early deliverables and other outcomes. Specifically, through these exchanges, we would use this phase of engagement to:

- **seek early mutual understanding on the key issues in the energy relationship we hope to move forward and the role of the proposed mechanism in that context;**

- establish a *modus operandi*, including a framework Memorandum of Understanding (MOU) – level, periodicity, business plan, finance, trouble-shooting etc
- agree on the main elements of a work plan for the first year and an outline of initiatives for the succeeding two years

Further organizational work would be undertaken in support of the process once under way. For instance, consider the establishment of a small unit, possibly within the Alberta Office in the Canadian Embassy in Beijing, which would provide regular series of briefings and lectures on Alberta's regulatory processes and the scope and potential of Alberta's energy sector.

For illustrative and discussion purposes, this phase might consist of the following elements:

- Supported by Alberta offices / Canadian Embassy in China, a 7-10 day **outgoing mission of Alberta officials, in the early part of this phase**, to meet with potential partners and to gain briefings on China's current energy situation and energy security priorities as well as related infrastructural and logistical challenges
- Following soon after this mission, a visit by the Alberta Minister of Energy/all three western province energy ministers, perhaps featuring a joint statement of intent on proceeding with a mechanism/formal work program;
- A visit by the Alberta Premier, with an agenda clearly focused on energy
- A consideration is the likely visit of the Canadian Prime Minister to China in the first quarter of 2012. There should be consultation with Ottawa (both at the political level and among officials) on shared energy messaging prior to the visit.

- Supported by the Alberta government and the a secretariat organized for this purpose, a 5-7 day **incoming mission of Chinese working level officials and SOE representatives** to receive briefings from on Alberta/western Canada priorities and capacities in the energy sector and our sense of the opportunities going forward which a mechanism can seek to build upon;
- Either as a standalone event or as an extension of one or both of the outgoing and incoming missions proposed (i.e. to save time and expense), **an exploratory working level meeting** that would set the stage for the formal mechanism including mission statement, terms of reference for operation of mechanism, the parameters of a founding agreement or MOU, and the main lines of what might constitute a useful business plan of issue taskings and operational activities for first year to 18 months of the mechanism's life

LAUNCH SCENARIO - SUMMER-FALL 2012

The design of this scenario, local resources permitting and Chinese interest secured, should seek to maximize the impact of the initiative and build confidence on the speed and substance of its forward movement. While Chinese timetables could well be slower, but the launch would seek to acquire a high-profile, supported by a vigorous and well targeted communications strategy.

If successful, the launch phase and associated communications would generate (a) in China, strong and positive interest in China, helping thereby to mainstream Alberta's/Canada's image and brand as a potential energy supplier and investment opportunity; and (b) in Canada, to

lend a sense of forward momentum to the energy relationship that would be helpful in moving forward with infrastructural and related regulatory initiatives.

The activity profile may include, for instance,

- a possible New West Partnership Premiers' mission to China, with announced determination to feature energy sector in its future work
- a ministerial trade mission to China accompanied by key energy producers and service providers capped by signature of the MOU;
- the first meeting of the mechanism, agreement on priority policy issues for attention and on the elements of its initial work plan of operational activities.

WORK PROGRAM PHASE (FALL 2012-SPRING 2014)

Apart from policy or problem solving work identified for follow-up, this work plan may include operational elements, for instance,;

- a bi-national "energy conference event", in China, comprising government, business and experts on Canada, China and global energy and the opportunities and challenges ahead for our bilateral trade, investment and technology ties in this sector; this would function as a get-acquainted contact maker, a source of data and analysis to inform future work, and a communications vehicle in its own right;
- An annual "China Energy Briefing" where the Minister of Energy and his officials would consult Alberta industry leaders on developments in China and Asia more generally. That would affect

Alberta's energy sector.

- Joint province/federal regulatory briefings tour in China reaching wider communities - updating customers on progress on infrastructure developments and permitting, investment policy requirements and incentives, and visa and related human resource issues following up on similar initiatives early
- an incoming Chinese investment mission hosted by Alberta to brief key Chinese SOE officials on the Western Canada oil and gas sector and through site visits and one-on-one business meetings to survey early-to-mount opportunities upstream and downstream as well as in infrastructure;
- the initiation of a two-way study and work energy internship program for young Chinese and Canadian professionals aiming at a fall 2012 start-up;
- taking care not to duplicate work going on already, at least one or two science and technology workshop or exchange events on topic of identified mutual interest, possibly one on heavy oil refining technology and perhaps one with a clean energy theme;
- a Chinese media tour of key sites and infrastructure along with interviews with key government and business players in the oil and gas sector

Clearly the final componentry of the work program, in other words the actual first steps taken, will involve modifications in light of the preferences of our own stakeholders, and the outcome of talks with the Chinese side. The precise details and pacing of operational scheduling are difficult to predict in all exigencies. Some time and some

flexibility will be required. Alberta, at least Alberta on its own, is a “sub-national entity” – not the US, Russia or Australia. Moreover, Chinese officials’ time frames and preferred mandates can often be slower and more confined respectively than typically activist-minded North Americans may wish.

In all respects and at all stages, the challenge of designing these first steps will be to bring a balance between, on one hand, patient preparation, backed by considered and agreed priorities, to the construction of a long term energy relationship with China and, on the other, the necessity of building early momentum and engaging high level commitment on both sides in support for such an initiative.

In support of both the preparation and the execution, there will be a premium on sound analysis, smart organization and resourcing, and solid communications strategies. It is our assessment that an operational approach along the lines of the foregoing - and with federal-provincial matters effectively “managed” - will have the capacity to move quickly, substantively and sustainably and deliver meaningful results.

In this way, a well conceived dialogue mechanism and a well-designed work program, with full engagement and buy-in, will play an indispensable role in building and carrying through on a long term energy strategy between Alberta and China. In short, there are challenges but there is every reason for confidence in moving forward.

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The State-Owned Assets Supervision and Administration Commission of the State Council (SASAC)

The Ministry of Commerce (MOFCOM)

The Ministry of Lands and Resources (MLR)

The Ministry of Foreign Affairs

CNPC

SINOPEC

CNOOC

CHINA'S ENERGY DIALOGUE MECHANISMS WITH EU, AUSTRALIA, US AND RUSSIA

CHINA AND EU ENERGY DIALOGUE MECHANISM

EU-China Trade and Economic Cooperation Agreement signed in 1985.

China-EU Energy cooperation has been in existence since 1994 and is one of the earliest Sectoral Dialogues between the European Commission and its Chinese partner in EU-China foreign relations. Two main bilateral forums on energy allow for close cooperation.

- **EC-China Biannual Energy Conferences** between the Directorate-General for Energy of the European Commission and the Chinese Ministry of Science & Technology (MOST) take place on a bi-annual basis, alternating between China and Brussels since 1994, to discuss aspects of energy-related research. The most interesting feature of this form of cooperation lies in the fact it provides on a regular basis a platform for the European and Chinese enterprises to meet and exchange views.
- The annual **EC-China Energy Dialogue** between the European Commission and the National Energy Administration (NEA) of China was launched in 2005. The fourth Energy Dialogue was held on 6 July 2010 in Shanghai. For the first time, the Energy Dialogue was held at Minister Level, with Commissioner Oettinger and NEA Administrator Zhang Guobao having co-chaired the meeting.
- In addition, energy issues are also discussed between Heads of States at the EU-China summits, which take place once a year.

Six priority areas have been identified for cooperation between the EC and China in the field of energy: Renewable energy, smart grids, and energy efficiency in the building sector, clean coal, nuclear energy and energy law. Of note, given the orientation of our own report, is the apparent lack of emphasis on petroleum and strategic energy issues.

At the industry level, China-EU investment and trade seminars and forums are also held on a regular basis. Organizers include Sichuan Provincial Government, Le Havre Municipal Government, big law firms and trade associations, etc.

CHINA AND AUSTRALIA ENERGY DIALOGUE MECHANISM

China and Australia have over \$100 billion in trade per year and Australian leaders know China and the Chinese market very well. Former Prime Minister Bob Hawke visited China more than 90 times, Previous Prime Minister and current Australian Minister for Foreign Affairs Kevin Rudd with university majors in Chinese language and Chinese history speaks fluent Mandarin, although China-Australia relations did have some set-backs during his tenure. Current Prime Minister Julia Gillard visited China earlier this year and

signed 5 major trade and investment agreements.

China and Australia energy trade focuses on LNG. The two countries' trade and investment dialogue, including energy, centres on the five bilateral forums listed below:

- The **Australia-China Bilateral Dialogue Mechanism for Resources Cooperation (Bilateral Dialogue)** was established in 2000. Its purpose is to facilitate the exchange of information to gain a mutual understanding of energy and mineral resource policies and issues in respective countries; promote trade and investment to enhance bilateral cooperation and to stimulate bilateral commercial relationships for the benefit of Australia as well as China. The 5th meeting of the Bilateral Dialogue was held in Sydney in December 2009. The meeting was held in conjunction with the 3rd meeting of the China-Australia Joint Coordinating Group on Clean Coal Technology.
- **Australia China Economic and Trade Cooperation Forum:** the 2010 forum held in Canberra was organized by the Australia China Business Council in partnership with the PRC Ministry of Commerce and the China Chamber of Commerce in Australia. Chinese Vice-President Xi Jinping, likely to be the next President of PRC, Australia Prime Minister Kevin Rudd, Australia Minister for Foreign Affairs and Trade, Australia Minister for Resources, Energy and Tourism, Chinese Deputy Administrator of PRC National Energy Administration, and over 600 businesspeople and 30 CEOs from major companies on both sides attended this forum.
- **China-Australia CEO Roundtable Meeting:** The second China-Australia CEO Roundtable Meeting, jointly organized by the Ministry of Commerce of PRC, and Australian Department of Foreign Affairs and Trade, sponsored by the China Development Bank (CDB) and the Business Council of Australia (BCA), opened in April 2011 in Beijing. After the meeting, Chen Yuan, chairman of the Chinese delegation and Chairman of the CDB Board, and Graham Bradley, chairman of the Australian counterpart and BCA president, reported the results of the meeting and participant enterprises' proposals respectively to H.E. Li Keqiang, Vice Premier of the State Council of the People's Republic of China and H.E. Julia Eileen Gillard, Australian Prime Minister.
- **Australia-China Joint Ministerial Economic Commission Meeting:** established in 1986 and held biannually. Chinese Minister of Commerce and Australian Minister of Trade jointly initiated the meeting. Until now 13 meetings have been held. The meeting had a wide range of topics for discussion, including the cooperation in the fields of wool, investment promotion, the construction of trade and investment websites, energy, agricultural products and quarantine, as well as regional and multilateral issues.
- **ACCTI: The Australian Council for the Chinese Trade & Investment (ACCTI)** is a business association dedicated to promote Australian business in China. In partnership with Chinese government and associations this council held Vice Ministerial level meetings on an irregular basis. Since 2004, three meetings have been held.
- **China-Australia Free Trade Agreement negotiation:** The first round of negotiations began on May 26, 2005 after a joint feasibility study. Since then 15 negotiating rounds have been completed. In contrast to

other countries, Australia is seeking a full FTA including all sectors instead of a gaining a smaller FTA on some issues. Negotiations have dragged on as Australia has been unsatisfied with China's offer on market access for goods including agricultural goods.

CHINA-US ENERGY DIALOGUE MECHANISM

Energy cooperation has become one of the important features in bilateral relations between China and U.S., as well as one of the key topics in the semi-annual China-US Strategic and Economic Dialogue. In June 2008, China's Vice Premier Wang Qishan and US Treasury Secretary Henry Paulson participated in the establishing of the Ten Year Framework (TYF) for Cooperation on Energy and Environment. Under this framework, the two countries will strengthen the exchange of information and best practices to promote innovation and develop solutions to the environment and energy problems. To further elaborate the role of the TYF, the two countries signed the Memorandum of Understanding to Enhance Cooperation on Climate Change, Energy and Environment in 2009. The TYF includes agreed action plans on electricity, water, air, transportation, wetlands, nature reserves and protected areas, and energy efficiency. In addition, the TYF Joint Working Group has been established to meet in discussion of energy issues on a regular base.

The TYF involves ministries and agencies from both China and US. From the US, for instance, it includes Departments of State, Energy, Treasury, Commerce, Interior, Transportation, and Agriculture, as well as the Environmental Protection Agency, the Trade Development Agency, and the U.S. Agency for International Development. Participating ministries for China include the National Development and Reform Commission, the State Forestry Administration, the National Energy Administration, and the Ministries of Finance, Environmental Protection, Science and Technology and Foreign Affairs.

In addition to the TYF, China and U.S. have signed a number of agreements related to energy at the government level, for example

- Memorandum of Understanding on Bilateral Energy Consultation between SDPC and USDOE
- Energy and Environment Cooperation Initiative between the Chinese Government and the US Government
- Agreement of Intent on Cooperation Concerning Peaceful Uses of Nuclear Technology between SDPC and DOE
- Statement of Intent on Cleaner Air and Cleaner Energy Technology Cooperation between SDPC and the US EPA
- Statement of Intent on a Cooperative Study of Natural Gas Utilization in China between SDPC and the US EPA
- Memorandum of Understanding on Bilateral Energy Policy Dialogue between NDRC and USDOE

- Cooperation Protocol for Clean Energy Tech for 2008 Beijing Olympics

Other energy cooperation activities:

- Energy Policy Dialogue between USDOE and NDRC of China since 2005;
- Oil and Natural Gas Forum since 1998.
- Five-Country energy Ministers roundtable in 2006 and includes energy ministers from China, India, Japan, Korea and US.

While the clear lead on US-China energy dialogue is conducted by the US federal government, in the case of Alaska energy exports to China are the third largest component of Alaska's exports to China, and Alaska's state government has discussed the export of oil field services and LNG with senior Chinese officials.

CHINA-RUSSIA ENERGY DIALOGUE MECHANISM

Modern Sino-Russian energy cooperation began in the early 1990s with the changes in Sino-Russian relations following the breakup of the Soviet Union. Since then, China and Russia have been working together in several energy projects, such as the natural gas project at Kovyktin in Irkutsk, the gas project at Urengoy, the Chayankin and other gas fields in the Sakha Autonomous Republic, the construction of an oil pipeline from Eastern Siberia to China, and the export of Sakhalin off-shore gas to China. The regular China-Russia Energy Dialogue has also strengthened the Sino-Russian strategic partnership in energy sector.

In November 2010, China's Premier Wen Jiabao and Russian Prime Minister Vladimir Putin participated in the signing of a number of deals on oil, gas, coal and nuclear cooperation, which will significantly increase energy trade volumes between the two countries. Under these agreements, China and Russia will joint invest \$5 billion into building an oil refinery with a planned capacity of 15 million tons annually.

The cooperation between China and Russia in oil and gas in the future will be focused on the following areas:

- The Russian side is to provide China with crude and refined oil in specified quantities on an annually increasing basis and at mutually beneficial prices and transportation expenses as agreed upon by both sides.
- In exchange for crude oil that China produces at Akchubinsk Oil Field in Khazakstan, Russia's Yukos Company will export its crude oil to China or other countries.
- China and Russia will carry out technical cooperation in laying natural gas pipelines and taking on other infrastructure projects, setting up a nation-wide power supply network and improving the existing natural gas supply network in China.

- The two sides will carry out scientific and technological cooperation in underground gas storage, designing and operation of long-distance natural gas pipelines, etc.
- The two sides will continue to cooperate in prospecting natural gas and constructing gas fields in both countries.

The rationale for the two countries to cooperate in oil and gas:

- As China and Russia share a common border, oil and gas pipelines need not run through any third country. Transport, therefore, is convenient and low-cost.
- The situation is stable in the regions where oil and gas fields are located and the pipelines pass, thus ensuring secure production and transportation.
- With growing oil and natural gas consumption, China is a large potential market for Russian oil and natural gas.
- Good state-to-state relations ensure for long-term cooperation in oil and gas between China and Russia.

Unique features of Sino-Russian cooperation in oil and gas:

- It is mutually complementary. Russia has rich oil and gas deposits while China has a huge, ever expanding market for oil and gas. Through this trade, Russia can obtain the funds necessary to revitalize and develop its economy, while China can receive much needed energy supplies from Russia for the modernization of its national economy. The two countries are not rivals, but mutual beneficiaries in this cooperation.
- It is massive in scale. Russia will eventually provide to China more than 50 billion cubic meters of natural gas and over US\$30 billion for investment.
- Energy cooperation has vigorous support and encouragement from the two governments, local authorities and companies concerned in both countries.
- China-Russia energy cooperation is not exclusive though it is mainly bilateral in nature. It is open to other states, for investment, technology, joint prospecting and exploration, pipeline construction at all reaches. Companies from the U.S., Japan, South Korea and other countries have for many years undertaken feasibility studies on joint development of oil and gas resources in Eastern Siberia and on building oil and gas pipelines to China.

STRATEGIC PETROLEUM RESERVES (SPRS) IN CHINA

- China's SPRs program is mainly to reduce the impact of crude supply disruption.
- Phase I (by end 2008): 16.4 million m³ or 103 million bbl (approximately 31 days of net imports or 15 days of total consumption) in four sites (Zhenhai, Zhoushan, Huangdao, and Dalian). Phase I construction was completed and all the tanks were filled by April 2009, with average crude procurement price at US\$58/bbl.
- Target for Phase II (by 2012/13): Another 26.8 million m³ or 169 million bbl, totaling 272 million bbl (approximately 60 days of net imports or 33 days of total consumption).
- Target for Phase III (by 2015/2016): To establish 500 million bbl of SPRs.

SOURCE:

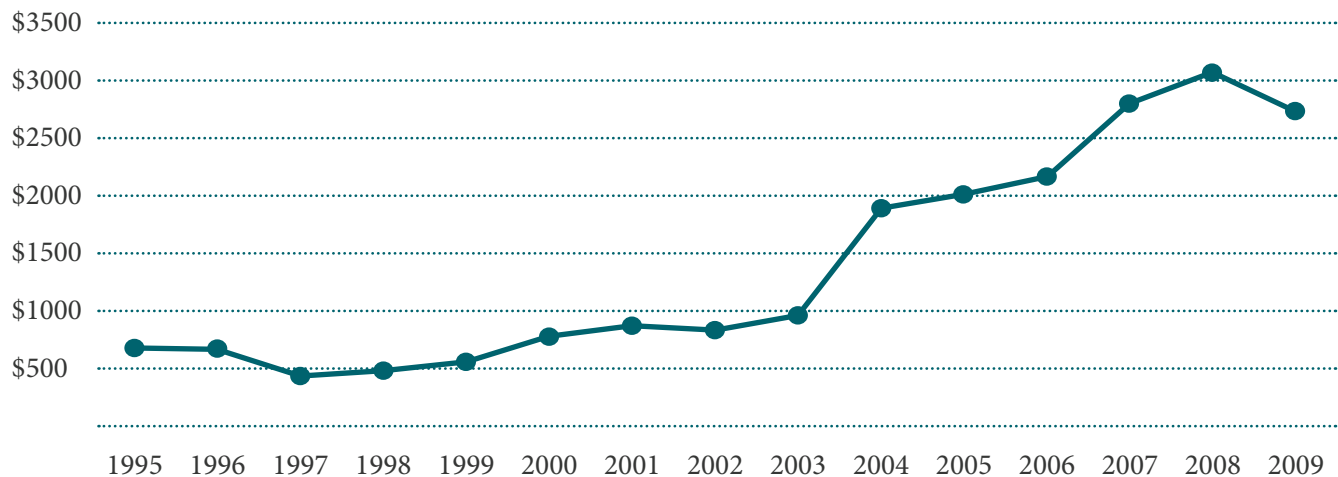
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A BRIEF SUMMARY ON CURRENT ENERGY TRADE BETWEEN ALBERTA AND CHINA

China is Alberta's second-largest trading partner after the U.S. — with total exports valued at \$2.8 billion in 2009. Alberta's exports to China have grown five times from 1999 to 2009. See the chart below. Alberta is Canada's largest exporting province to China, accounting for 32% of the country's total.

ALBERTA'S EXPORTS TO CHINA (IN MILLIONS OF CND)



Source: Alberta International Trade Review, 2009

China was the largest market for Alberta exports in the Asia-Pacific during 2009 and absorbed \$2.8 billion worth of goods (42% of total exports to the Asian-Pacific region), out of which \$144 million is crude oil. The breakdown of this amount is shown in the table on the right.

TOP 20 EXPORTS FROM ALBERTA IN 2009 (\$CDN, MILLIONS)

Rank	HS - Description	2009	2008	%Change
1	120510 - CANOLA SEEDS (WHETHER OR NOT BROKEN)	\$542.35	\$300.54	80%
2	151411 - RAPE (CANOLA) OR COLZA OIL - LOW ERUCIC ACID - CRUDE	\$365.85	\$171.63	113%
3	290531 - ETHYLENE GLYCOL (ETHANEDIOL)	\$336.80	\$869.38	-61%
4	750210 - NICKEL - UNWROUGHT, NOT ALLOYED	\$295.96	\$234.71	26%
5	390190 - POLYMERS OF ETHYLENE NES, IN PRIMARY FORMS	\$175.06	\$203.31	-14%
6	270900 - CRUDE OIL	\$144.45	\$24.62	487%
7	250300 - SULFUR (EXCL. SUBLIMED, PRECIPITATED AND COLLOIDAL)	\$133.79	\$649.48	-79%
8	470329 - CHEMICAL WOODPULP - NON-CONIFEROUS, BLEACHED	\$106.76	\$93.00	15%
9	270112 - BITUMINOUS COAL - NOT AGGLOMERATED	\$95.30	\$21.73	338%
10	470321 - CHEMICAL WOODPULP - CONIFEROUS, BLEACHED	\$77.38	\$42.89	80%
11	100300 - BARLEY	\$62.26	\$25.29	146%
12	470500 - SEMI-CHEMICAL WOODPULP	\$47.88	34.91	37%
13	390120 - POLYETHYLENE - SPECIFIC GRAVITY OF 0.94 OR MORE	\$47.59	\$42.05	13%
14	410150 - UNTANNED WHOLE HIDES - BOVINE/EQUINE ANIMA LS > 16KG	\$37.06	\$38.94	-5%
15	847989 - MACHINES HAVING INDIVIDUAL FUNCTIONS, NES	\$29.89	\$4.06	636%
16	810520 - COBALT - UNWROUGHT METALLURGICAL PRODUCTS	\$21.28	\$6.10	249%
17	100190 - MESLIN AND WHEAT NES	\$13.46	\$0.00	0%
18	410411 - BOVINE AND EQUINE LEATHER, DEHAIRIED, IN WET STATE	\$11.87	\$0.00	0%
19	843143 - BORING OR SINKING MA CHINERY PA RTS	\$11.02	\$14.18	-22%
20	852691 - RADIO NAVIGATIONAL AID APPARATUS	\$9.61	\$7.39	30%
Total Top 20 Exports		\$2,565.61	\$2784.21	-8%
Other Exports		\$188.49	\$295.38	-36%
Total Alberta Exports		\$2,754.09	\$3079.59	-11%

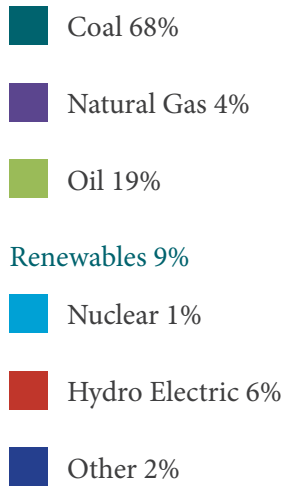
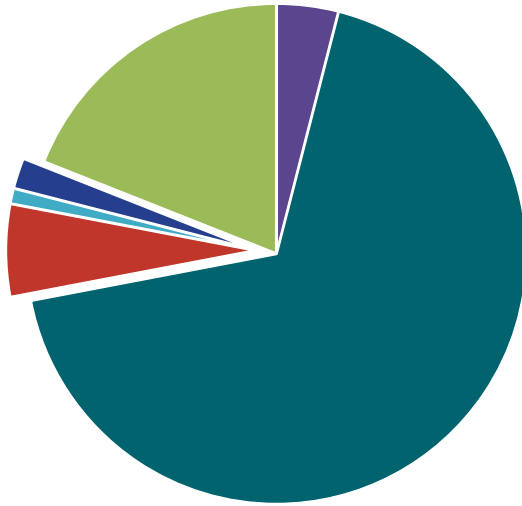
Source: Alberta International Trade Review, 2009

However, this is minute compared to Alberta's trade with US. In 2009, Alberta exported \$30.9 billion crude oil to the US. Total exports to China from Alberta are not even 0.5% of what Alberta exported to the US in the same year.

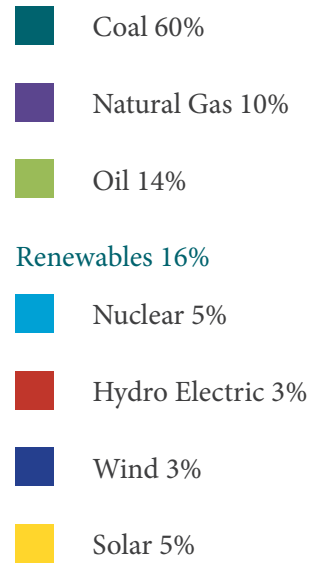
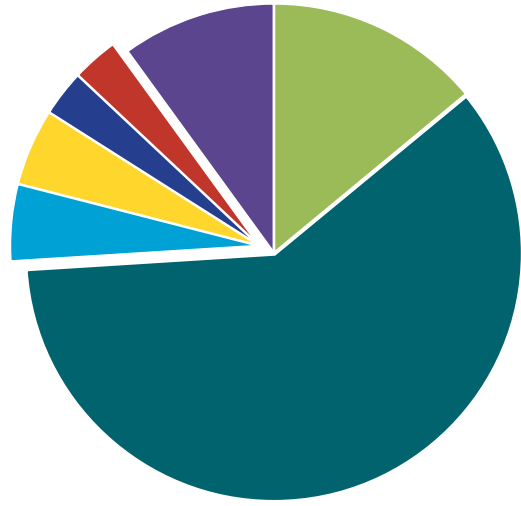
Moving up to the country level, China is a growing market for Canadian energy exports. Here Energy exports is defined as exports of energy products, which is all the products in HS codes Chapter 27 (Mineral Fuels, Mineral Oils and Products of their Distillation; Bituminous Substances; Mineral Waxes) Canadian energy exports to China were up 45.0 percent (\$394 million) in 2010, reaching nearly \$1.3 billion—a level five times as great as two years ago. However, the United States was by far the principal destination for Canadian energy exports in 2010, accounting for some 92.6 percent (\$87.7 billion) of total Canadian exports of fuels, oils, and other energy products. (Canadian State of Trade, 2011)

CHINA ESTIMATED ENERGY CONSUMPTION

Energy Consumption in China
(by Type in 2008)

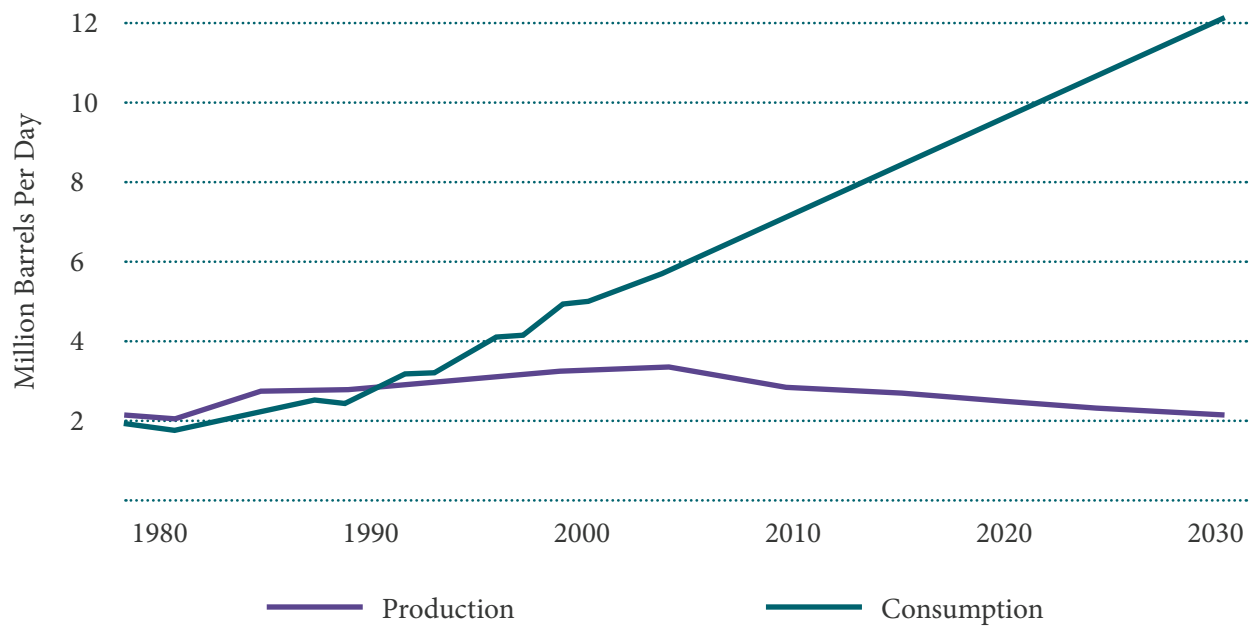


Projected Energy Consumption in China
(by Type in 2020)



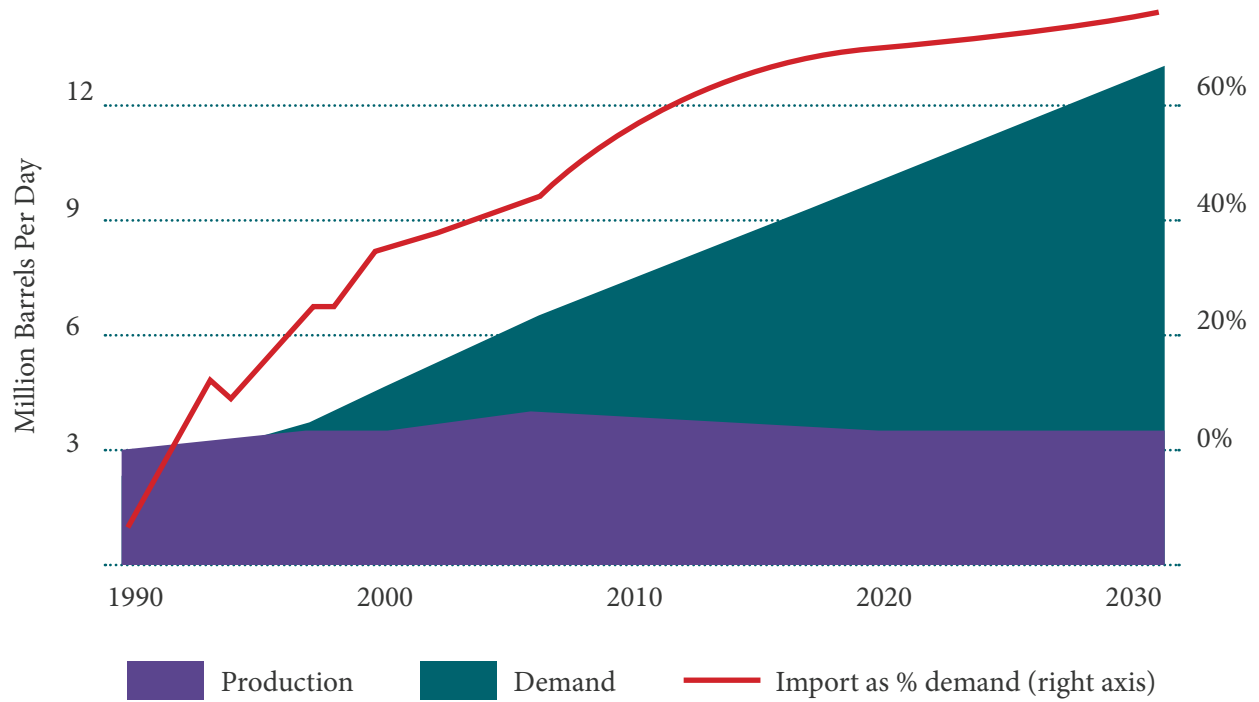
Source: Compiled from EIA International Energy Annual 2006 and China Statistical Yearbook 2009

OIL BALANCE IN CHINA



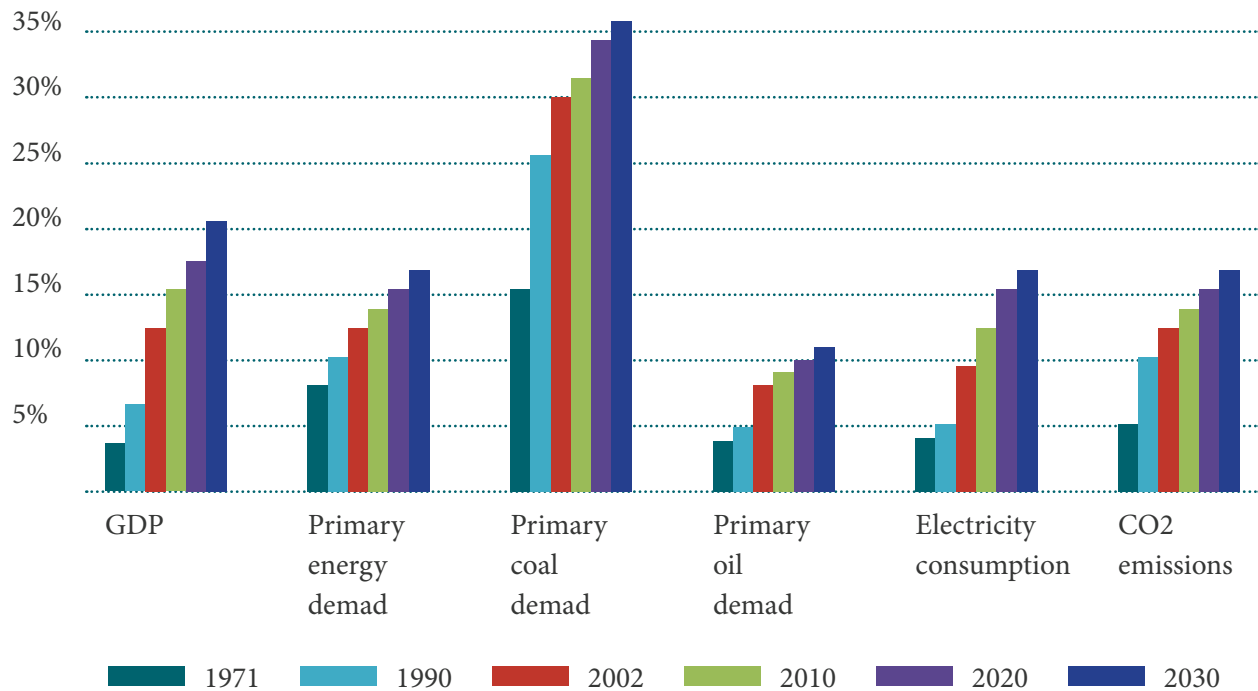
Source: International Energy Agency, 2005

CHINA OIL SUPPLY BALANCE



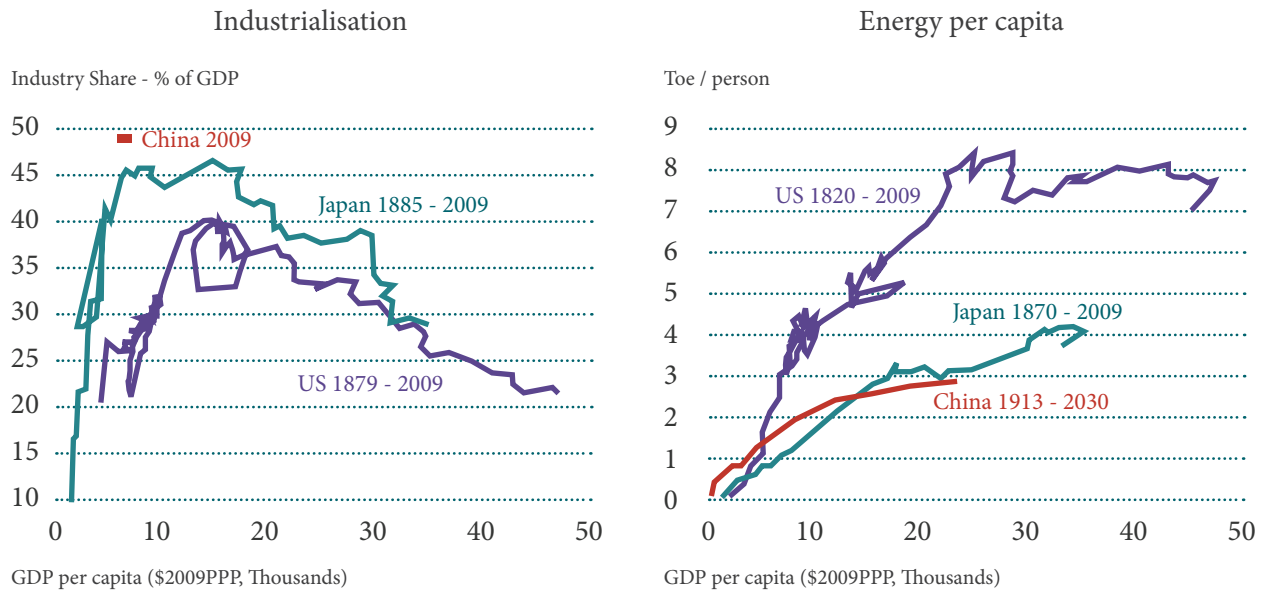
Source: International Energy Agency, 2005

CHINA'S SHARE IN THE GLOBAL ECONOMY AND ENERGY MARKETS



Source: International Energy Agency, 2005

CHINA'S PATHWAY ON ENERGY CONSUMPTION



Source: BP Energy Outlook 2030, prepared by British Petroleum, January 2011.

BRIEF INTRODUCTION OF THE MODERN EVOLUTION OF THE CHINESE PETROLEUM INDUSTRY

Since the establishment of People's Republic of China in 1949, the Chinese petroleum industry has undergone a number of organizational changes over its history.

On July 30 1955, the Ministry of Petroleum Industry was formally established in Beijing, under its first Minister, General Jukui Li. From 1960 to 1978, the Ministry of Petroleum Industry focused on the exploration and construction of four main oilfields in China: the Daqing Oilfield (Heilongjiang Province), Shengli Oilfield (Shandong Province), Liaohe Oilfield (Liaoning Province) and Dagang Oilfield (Tianjin Municipality).

In 1978, in order to solve the fund shortage problem as well as to diversify the development of petroleum industry, the Chinese government began to implement the reform and opening-up policy in this field. In 1982, the China National Offshore Oil Corporation was set up. In July 1983, the China Petrochemical Corporation was established. The Ministry of Petroleum Industry was reorganized into the China National Petroleum Corporation on September 17 1988. The fourth State-owned petroleum corporation, China National Star Petroleum Co., Ltd. came into being on January, 1997 formed from the former Bureau of Petroleum and Marine Geology, Ministry of Geology and Mineral Resources. At that time these four State-owned corporations constituted the foundation of the Chinese petroleum industry.

In order to unify China's petroleum industry, the State Council began to reconstruct the Chinese oil and petrochemical enterprises into three major companies: China National Petroleum Corporation (CNPC), China Petroleum & Chemical Corporation (SINOPEC) and China National Offshore Oil Corporation (CNOOC). In this reform, China National Star Petroleum Co., Ltd. was merged into SINOPEC, under the name of SINOPEC Star Petroleum Co., Ltd. In 2000 and 2001, these three national oil companies became listed companies and entered into overseas capital markets.

THE RELATIONSHIP BETWEEN CNPC, SINOPEC AND CNOOC WITH THE CHINESE GOVERNMENT

Although CNPC, SINOPEC and CNOOC are all listed companies, they are all state-owned holding enterprises and are directly under the supervision and management of State-owned Assets Supervision and Administration Commission of the State Council (SASAC). Authorized by the State Council, in accordance with the Company Law of the People's Republic of China and other administrative regulations, the SASAC performs investors' responsibilities, supervises and manages the state-owned assets of the enterprises, enhances the management of the state-owned assets, appoints and removes the top executives of the supervised enterprises, organizes the supervised enterprises to turn state-owned capital gains over to the state and urges the enterprises under supervision to carry out the "guiding principles, policies related laws and regulations".

Moreover, the leadership of these three companies all have background in government, for instance, Jiemin

Jiang, Chairman of CNPC, has been the Vice Provincial Governor of Qinghai Province; Shulin Su, former Chairman of SINOPEC, had been the Vice Provincial Governor of Liaoning Province, is currently the provincial governor of Fujian Province; and Liucheng Wei, former President of CNOOC, has been the Provincial Governor of Hainan Province. The senior officials in the energy SOEs remain functionaries within government.

CHINA ENERGY FDI – CANADA

A SHORT LIST OF MAJOR PROJECTS AND ACQUISITIONS

CNPC

CNPC has been present in Canada since 1993 and now has oil and gas assets and interests in the country. On June 15, 1993, CNPC acquired a 15.8865% operating interest in North Twining Oilfield and 11.477% equity of the natural gas processing plant in Alberta. At present, CNPC has registered an oil and gas exploration and development company in Alberta, and was awarded interests in eight blocks in Alberta and Saskatchewan. It also acquired eleven leases auctioned by province of Alberta in early 2009. CNPC will further develop its cooperation with the Canadian petroleum sector and jointly explore mutually beneficial collaboration in oil sands development, crude oil pipeline construction and downstream upgrading for common development.

In February 2011, PetroChina International Investment Company Limited, a subsidiary of CNPC, signed an agreement with Encana Corporation for paying C\$5.4 billion to acquire a 50 percent interest in Encana's Cutbank Ridge business assets in British Columbia and Alberta. In June 2011, the two parties ended negotiations after the parties were unable to achieve substantial alignment with respect to key elements of the proposed transaction, including the joint operating agreement.

In 2009, CNPC invested 1,700 million US dollars to purchase 60% of the shares of the MacKay River and Dover oil sands projects of the Athabasca Corporation in the north-eastern Alberta.

In 2002, CNPC signed an agreement with Canadian Ivanhoe Energy Inc to jointly develop the exploration of gas fields in Sichuan Province in China.

SINOPEC

In October 2011, SINOPEC has offered C\$2.2bn to buy Canadian oil and gas firm Daylight Energy.

In January 2011, SINOPEC joined a group investing more than \$100 million in Enbridge Inc.'s proposed \$5.5 billion pipeline to Canada's west coast.

In April 2010, SINOPEC agreed to buy ConocoPhillips' 9.03 percent interest in the Syncrude Canada Ltd project in Canada's oil sands for \$4.65 billion, marking one of the Asian country's largest investments ever in North America.

In June 9, 2009, SINOPEC announced its intentions to purchase a 100% stake in Canada-based Addax Petroleum Corp, which is engaged in the oil and gas businesses in Africa and selected countries in the Middle East.

In September 2008, SINOPEC took over all the shares of the Canadian-listed Tanganyika, a Canada-based oil and gas company focused around properties in Syria.

In 2005, SinoCanada Petroleum Corporation, one wholly owned subsidiary companies of SINOPEC, signed an agreement with Synenco to jointly develop the Northern Lights Project on oil sands exploration in the Athabasca region of Alberta. Currently, SINOPEC holds 50% of the total shares of the Northern Lights Project.

CNOOC

In July 2011, CNOOC announced that it has offered to buy Opti Canada Inc., the struggling Calgary-based oil sands producer, for \$2.1bn. On November 15, OPTI Canada Inc. announced that the Minister of Industry, under the Investment Canada Act, has approved the proposed acquisition of OPTI by indirect wholly-owned subsidiaries of CNOOC Limited (the “Acquisition”) upon determination that the transaction is likely to be of net benefit to Canada. This acquisition has now been completed.

In 2009, CNOOC and the Canadian Husky Energy Company started to jointly develop the natural gas exploration projects in the South China Sea.

In 2005, CNOOC purchased 16.69% of the shares of MEG, a Canadian oil sands business company based in Calgary.

THE PROCESS OF PETROLEUM OIL IMPORT IN CHINA

The Process of importing oil to China is as follows:

- NDRC and MOFCOM are responsible for the overall national plan of oil import and the distribution of import quotas to provinces.
- Enterprises in each province have to apply for the import quotas from the Provincial Departments of Commerce.
- Provinces or enterprises cannot import oil directly by themselves, but must act through oil import agents.
- Only the headquarters of the three or four State-owned petroleum enterprises have been appointed by NDRC and MOFCOM as the oil import agents. Their sub-national branches or companies have no such power.
- Once a company obtains the approval of import quotas from the provincial departments of commerce, it must contact the import agents to obtain the import agreement.
- With the provincial approval and the agreement of the import agents, the company can then apply for another certificate from the MOFCOM.
- With the above mentioned three certificates, the oil import agents will import oil on behalf the companies.

Source: Ministry of Commerce Petroleum Oil Import Regulations

MEMORANDUM OF UNDERSTANDING BETWEEN THE STATE DEVELOPMENT PLANNING COMMISSION OF THE PEOPLE'S REPUBLIC OF CHINA AND THE MINISTRY OF NATURAL RESOURCES OF CANADA CONCERNING COOPERATION IN THE FIELD OF ENERGY

MEMORANDUM OF UNDERSTANDING
(hereinafter referred to as "MOU")

between

THE DEPARTMENT OF NATURAL RESOURCES, CANADA

and the

**THE STATE DEVELOPMENT PLANNING COMMISSION,
PEOPLE'S REPUBLIC OF CHINA**

(hereinafter referred to as the "Participants")

concerning

COOPERATION IN THE FIELD OF ENERGY

WHEREAS the Participants have stated their mutual desire to develop and reinforce their cooperation in the field of energy;

The Participants, therefore, have reached the following understanding:

ARTICLE 1

The purpose of the MOU is to establish a working relationship between the participants based on equality, overall reciprocity and mutual benefit.

ARTICLE 2

- (1) Cooperation under this MOU may take the following forms:
 - (a) Promotion of technical cooperation, including exchange of experts and information, conduct of joint research and holding of workshops;
 - (b) Encouragement of cooperation in the energy sector between companies in both countries, including joint ventures when appropriate;
 - (c) Liaison with industrial, academic, professional, and other organizations, where appropriate;
 - (d) Other forms of cooperation mutually agreed upon by the Participants.

- (2) This MOU provides a broad framework for energy-related cooperation between Canada and the People's Republic of China. The Participants recognize that other relevant departments or agencies from their respective governments will continue to engage in energy cooperation through their own channels.

ARTICLE 3

Cooperation under this MOU may include the following areas of interest:

1. Energy policy:
To provide a framework for discussions and exchanges of information on the energy situations and policies of both countries, including identifying the conditions necessary to increase the bilateral flows of business sector investment, technology and expertise, and to promote the exploration, development and environmentally-responsible utilization of energy resources.
2. Energy efficiency:
To facilitate information sharing and dialogue on energy efficiency policies, programs and technology development.
3. Nuclear energy:
To expand and strengthen cooperation in the peaceful uses of nuclear energy, with a focus on enhanced dialogue and cooperation in nuclear research and development (R&D) in such areas as spent fuel management, storage and disposal. Such cooperation will be in accordance with the agreement between the Government of Canada and the Government of the People's Republic of China for cooperation in the peaceful uses of nuclear energy, done at Beijing on November 7, 1994.
4. New and renewable energy:
To explore opportunities to enhance technology transfer, investment and trade in new and renewable energy technologies and processes, with the intention of identifying future areas of cooperation.
5. Energy research and development:
To explore opportunities to enhance cooperation in non-nuclear energy research and development.
6. Regional Development:
To explore how Canada-China cooperation can be extended to include China's western areas.
7. Other areas of cooperation mutually agreed upon by the Participants.

ARTICLE 4

This MOU is general in nature and is neither comprehensive nor exhaustive. When the Participants agree to undertake a form of cooperation under the umbrella of this MOU, the Participants will execute an Implementing Arrangement that will set forth the timing and scope of the specific forms of cooperation and any other matters on which mutual consent may be desirable (such as funding, intellectual property, liability, etc.). It is understood that the ability of each Participant to undertake forms of cooperation is subject to the availability of funds and resources.

ARTICLE 5

The results of cooperative projects conducted under this MOU will be treated in accordance with the specific terms identified in the associated Implementing Arrangements.

ARTICLE 6

The Participants agree to establish a Canada/China Joint Working Group on Energy Cooperation as the primary mechanism to pursue this cooperation. The Working Group will establish a terms of reference and plan and coordinate the activities outlined in this MOU. Each Participant will designate an official as Co-Chairperson of the Working Group. Each Participant will also designate other participants (government or other) in the Working Group as may be required.

The Working Group will meet, in principle, each year. Meetings will in general alternate between locations in both countries, and will be chaired by the host organization. Other arrangements may be made if they are acceptable to both Participants. The first meeting will occur in Beijing at a date and time to be agreed upon by the Participants.

Except when otherwise agreed in writing, all costs resulting from cooperation under this Memorandum of Understanding will be borne by the Participant that incurs them.

ARTICLE 7

Cooperation under this agreement will be in accordance with the applicable laws, statutes and regulations of both countries.

ARTICLE 8

This MOU will enter into effect upon signature by both Participants (of all three versions) and remain in effect for five (5) years. It may be extended or amended with the mutual written consent of both Participants. This MOU may be terminated at any time upon three (3) months written notice from one Participant to the other Participant.

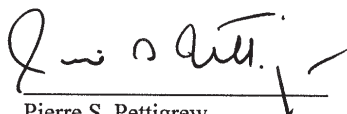
Termination of this MOU does not affect the implementation of any existing Implementing Arrangements between the Participants, or any other energy-related cooperation that may involve other departments of both countries' governments. Termination or amendment of the Implementing Arrangements under this MOU will be made in accordance with the provisions of each specific Implementing Arrangement.

ARTICLE 9

This MOU does not create any legally binding obligations between the Participants.

Done in duplicate at Beijing this 11th day of February, 2001, in the English, Chinese and French languages, all versions being equally valid.

For the Department of
Natural Resources, Canada by:



Pierre S. Pettigrew
Minister for International Trade

For the State Development
Planning Commission,
People's Republic of China by:



Wang Chunzheng
Executive Vice Chairman
State Development Planning Commission

SUVERY REPORT: “ALBERTANS’ VIEW ON CHINA”

(Attached)