Opportunities for First Nation prosperity through oil and gas development

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Executive summary

It has been estimated that, over the next decade, more than 600 major resource projects, worth approximately $650 billion, are planned for Canada, and First Nations communities have a unique opportunity to benefit from these developments. As this study demonstrates, every oil and gas project currently proposed in western Canada implicates at least one First Nations community, giving them an opportunity to increase employment and economic prosperity through collaboration in energy development.

In British Columbia, there are currently seven major oil and gas projects under proposal with the Major Project Management Office (MPMO). It is estimated that 56 of the 198 First Nations in that province (28 percent of communities) are in a position to benefit from oil and gas development. In Alberta, where the MPMO recognizes five new oil projects, 44 percent of First Nations communities can benefit from energy development. Only two projects are identified by the MPMO in Saskatchewan; however, these two projects will impact 23 percent of the First Nations communities in the province.

The First Nations communities that will be affected by oil and gas development have a young, unemployed population that can serve as a labour force for the proposed projects. The First Nations are one of the youngest and fastest-growing groups in the country. Whereas the median age for non-aboriginal Canadians was 41 years in 2011, the median age for the First Nations was 26 years. Moreover, the median age for First Nations communities that are in a position to benefit from the proposed oil and gas development ranges from 22 to 30 years.

Current unemployment rates in First Nations communities suggest that this group has much to gain from development in the energy sector. While the national unemployment rate is 7.1 percent, the unemployment rate for First Nations reserves is a staggering 23 percent. Unemployment rates are particularly high (20 percent to over 42 percent) in First Nations communities that are located in areas identified for oil and gas development.

The unique combination of population density in remote, resource-rich areas, a growing and young population, and a high level of unemployment places the First Nations in a unique position to benefit from energy development in Canada.
While there are some obstacles to overcome so that the First Nations can benefit from oil and gas development, solutions can be derived from successful examples of collaboration between governments, First Nations, and industry members. One such example is the partnership between the Haisla Nation and Chevron Apache, which brought a $350-million liquid natural gas project in British Columbia to fruition.
Introduction

It has been estimated that, over the next decade, more than 600 major resource projects, worth approximately $650 billion, are planned for Canada (Canada, n.d.). Due to a number of factors, First Nations communities across the country have a unique opportunity to benefit from these developments.

There is a notable geographical relationship between First Nations communities and energy development in western Canada. As this study will demonstrate, every energy development project currently proposed implicates at least one First Nations community. For example, approximately 23,000 indigenous people live in the oil sands areas, with 18 First Nations and six Métis settlements located in the region (NRCAN, 2013). The proximity of First Nations communities to energy development in Canada requires a working relationship between governments, these communities, and energy developers.

In some places, First Nations communities are already working alongside industry to benefit from oil and gas development. For example, in 2010 more than 1,700 aboriginal people were directly employed in oil sands operations, and over the past 12 years aboriginal-owned companies have secured more than $5 billion worth of contracts from oil sands developers in the region (NRCAN, 2013).

Drawing on information from Statistics Canada, the federal Major Project Management Office (MPMO), and Aboriginal Affairs and Northern Development Canada (AANDC), this paper will demonstrate that the First Nations have an opportunity to increase employment and economic prosperity through collaboration in energy development. This paper will also identify current obstacles to energy development in First Nations communities and offer possible solutions.
Geographic advantage

Numerous First Nations communities are located in remote geographical areas in Canada. Often, a lack of economic development in these remote regions can lead to diminished employment opportunities for the First Nations. However, given the current climate for major resource development and the location of remote First Nations in resource-rich areas, these communities are in a position to benefit from resource development, particularly oil and gas development. For example, the Northern Gateway project alone affects 36 First Nations in British Columbia and Alberta, while the Keystone XL project affects more than 12 First Nations in Alberta and Saskatchewan (figure 1).

As tables 1 and 2 demonstrate, the number of First Nations expected to benefit from oil and gas resource development in western Canada is significant.

In British Columbia, there are currently seven major oil and gas projects under proposal with the Major Project Management Office (MPMO). It is estimated that 56 of the 198 First Nations in British Columbia (28 percent) are in a position to benefit from these projects.

In Alberta, where the MPMO recognizes five new oil projects, it is estimated that 20 of the 45 First Nations (44 percent) can positively benefit from these projects. In Saskatchewan, only two projects are recognized by the MPMO, but these projects will impact sixteen First Nations (23 percent) in the province.

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1. These ventures are listed under the oil and gas banner of the MPMO’s project tracker. These include new pipelines, the expansion of existing pipelines, creation of LNG plants, and so on. For a full list of projects and detailed project plans, see the Appendix.
As the evidence demonstrates, every single oil and gas project currently proposed in western Canada will have an impact on at least one First Nations community. Because the First Nations are located in resource-rich areas, they have a unique opportunity to benefit from oil and gas development and bring economic prosperity to remote communities.
<table>
<thead>
<tr>
<th>Project*</th>
<th>Province(s)</th>
<th>Number of First Nations affected**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prince Rupert LNG (gas)</td>
<td>British Columbia</td>
<td>6</td>
</tr>
<tr>
<td>LNG Canada (gas)</td>
<td>British Columbia</td>
<td>8</td>
</tr>
<tr>
<td>Pacific Northwest LNG (gas)</td>
<td>British Columbia</td>
<td>5</td>
</tr>
<tr>
<td>Fortis Kingsvale (gas)</td>
<td>British Columbia</td>
<td>24</td>
</tr>
<tr>
<td>Coastal GasLink (gas)</td>
<td>British Columbia</td>
<td>28</td>
</tr>
<tr>
<td>Horn River (gas)</td>
<td>British Columbia</td>
<td>1</td>
</tr>
<tr>
<td>Keystone XL (oil)</td>
<td>Alberta, Saskatchewan</td>
<td>19</td>
</tr>
<tr>
<td>Northern Gateway (oil)</td>
<td>British Columbia, Alberta</td>
<td>36</td>
</tr>
<tr>
<td>MacKay River (oil)</td>
<td>Alberta</td>
<td>1</td>
</tr>
<tr>
<td>Frontier (oil)</td>
<td>Alberta</td>
<td>1</td>
</tr>
<tr>
<td>Jackpine (oil)</td>
<td>Alberta</td>
<td>3</td>
</tr>
<tr>
<td>Enbridge Bakken (oil)</td>
<td>Saskatchewan, Manitoba</td>
<td>4</td>
</tr>
</tbody>
</table>

*See Appendix for a description of each project listed.

**As identified by developers in project plans submitted to the Major Project Management Office.

Demographics and labour force opportunities

The aboriginal population is one of the fastest-growing groups in Canada. In 2006, the aboriginal population surpassed one million, up from 976,305 in 2001 (Statistics Canada, 2008). Aboriginals represented 3.8 percent of the total population of Canada enumerated in the 2006 census, up from 3.3 percent in 2001. Furthermore, Canada’s aboriginal population is growing much faster than its non-aboriginal population; indeed, the aboriginal population grew six times faster than the non-aboriginal population (45 percent compared to 8 percent) between 1996 and 2006 (Statistics Canada, 2009a). As figure 2 (pp. 6–7) demonstrates, the aboriginal population represents anywhere from 34 percent to 95 percent of the population in northern and remote areas of Canada, which are also resource-rich areas.

This population growth has resulted in not only a larger aboriginal population but also a younger population. Whereas the median age for non-aboriginal Canadians was 41 years in 2011, the median age for the First Nations population was 26 years (Statistics Canada, 2013). Furthermore, as figure 3 demonstrates, the largest age discrepancy is seen in western Canada, where the opportunity for oil and gas development is extensive. Among the First Nations that are in a position to benefit from oil and gas development (as identified by the MPMO), the median age of the population ranges from 22 to 30 years. In Alberta, where 44 percent of the First Nations communities are in a position to benefit from energy development (table 2), the median age of the First Nations population is just 23 years—one of the lowest in the country.

Although the population demographics of the First Nations are unique, a more startling statistic is the level of unemployment on reserves. As of September 2013, the overall unemployment rate in Canada was 7.1 percent, which is comparable to other G8 nations. However, the average unemployment rate on First Nations reserves was a staggering 23 percent, over three

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2. The growing aboriginal population can also partially be attributed to adults claiming aboriginal identity in greater numbers.
3. According to Statistics Canada's 2006 census, the latest data available.
According to the 2006 Census, the number of people who identified themselves as an Aboriginal person has surpassed the one-million mark, reaching 1,172,790 persons. In 2006, Aboriginal people accounted for 3.8% of the total population of Canada as enumerated in the census, up from 3.3% in 2001. This map shows the Aboriginal population as the percentage of the total population, by census division.

**Figure 2: Population density of the First Nations population of Canada**

According to the 2006 Census, the number of people who identified themselves as an Aboriginal person has surpassed the one-million mark, reaching 1,172,790 persons. In 2006, Aboriginal people accounted for 3.8% of the total population of Canada as enumerated in the census, up from 3.3% in 2001. This map shows the Aboriginal population as the percentage of the total population, by census division.

**Lambert Conformal Conic Projection. Standard Parallels 49°N and 77°N**

**Aboriginal population as a percentage of the total population (by census division):**
- 0.0% - 4.9%
- 5.0% - 15.0%
- 15.1% - 25.0%
- 25.1% - 50.0%
- 50.1% - 94.9%

**Selected Populated Place Names:**
- 0 - 999
- 1,000 - 4,999
- 5,000 - 19,999
- 20,000 - 84,999
- 100,000 - 648,999
- 650,000 or greater

**Boundaries:**
- National Parks
- Provincial/Territorial
- Municipal

**Census Division Boundaries:**
- Census Division Boundary
- Capital Cities
- National Parks
- Provincial/Territorial

**Source:**
Aboriginal Identity Population, 2006
Adapted from Statistics Canada, Profile of Aboriginal Peoples for Canada, Provinces, Territories, Census Divisions and Census Subdivisions, 2006 Census - Catalogue No. 94-578-X2006001.

Lambert Conformal Conic Projection. Standard Parallels 49°N and 77°N
Tables 3 and 4 demonstrate the current employment and demographic picture for First Nations identified as benefiting from proposed oil and gas development in Canada. Specifically, as tables 3 and 4 demonstrate, the levels of unemployment are particularly high in First Nations that are located in areas identified for oil and gas development. Unemployment rates average anywhere from 20 percent to over 42 percent in First Nations where current oil and gas projects have been identified (AANDC, 2012d).

This unique combination of population density in remote, resource-rich areas; a growing and young population; and a high level of unemployment places the First Nations in a unique position to capitalize on the opportunities available through energy development in Canada.

Table 3: Unemployment rates and median ages in First Nations communities affected by proposed energy developments in western Canada

<table>
<thead>
<tr>
<th>Number of First Nations affected</th>
<th>Average unemployment rate</th>
<th>Average median age</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td>56</td>
<td>32.9%</td>
</tr>
<tr>
<td>Alberta</td>
<td>20</td>
<td>27.0%</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>16</td>
<td>27.5%</td>
</tr>
<tr>
<td>Manitoba</td>
<td>3</td>
<td>30.0%</td>
</tr>
</tbody>
</table>

*As identified by developers in project plans submitted to the Major Project Management Office.

Sources: MPMO, 2012; AANDC, 2012d.
<table>
<thead>
<tr>
<th>Project*</th>
<th>Province(s)</th>
<th>Number of First Nations affected**</th>
<th>Average unemployment rate</th>
<th>Average median age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prince Rupert LNG (gas)</td>
<td>British Columbia</td>
<td>6</td>
<td>42.7</td>
<td>31.6</td>
</tr>
<tr>
<td>LNG Canada (gas)</td>
<td>British Columbia</td>
<td>8</td>
<td>37.8</td>
<td>31.5</td>
</tr>
<tr>
<td>Pacific Northwest LNG (gas)</td>
<td>British Columbia</td>
<td>5</td>
<td>42.7</td>
<td>31.6</td>
</tr>
<tr>
<td>Fortis Kingsvale (gas)</td>
<td>British Columbia</td>
<td>24</td>
<td>30.8</td>
<td>39.0</td>
</tr>
<tr>
<td>Coastal GasLink (gas)</td>
<td>British Columbia</td>
<td>28</td>
<td>31.8</td>
<td>30.5</td>
</tr>
<tr>
<td>Horn River (gas)</td>
<td>British Columbia</td>
<td>1</td>
<td>20.7</td>
<td>29.1</td>
</tr>
<tr>
<td>Keystone XL (oil)</td>
<td>Alberta, Saskatchewan</td>
<td>19</td>
<td>28.1</td>
<td>21.6</td>
</tr>
<tr>
<td>Northern Gateway (oil)</td>
<td>British Columbia, Alberta</td>
<td>36</td>
<td>32.3</td>
<td>28.4</td>
</tr>
<tr>
<td>MacKay River (oil)</td>
<td>Alberta</td>
<td>1</td>
<td>20.0</td>
<td>29.8</td>
</tr>
<tr>
<td>Frontier (oil)</td>
<td>Alberta</td>
<td>1</td>
<td>20.0</td>
<td>29.8</td>
</tr>
<tr>
<td>Jackpine (oil)</td>
<td>Alberta</td>
<td>3</td>
<td>20.0</td>
<td>29.8</td>
</tr>
<tr>
<td>Enbridge Bakken (oil)</td>
<td>Saskatchewan, Manitoba</td>
<td>4</td>
<td>27.7</td>
<td>24.8</td>
</tr>
</tbody>
</table>

*See Appendix for a description of each project listed.

**As identified by developers in project plans submitted to the Major Project Management Office.

Sources: MPMO, 2012; AANDC, 2012d.
Obstacles, solutions, and success stories

With a young First Nations population located in close proximity to oil and gas development, there is clearly an untapped labour force in these communities. And with unemployment rates in some communities reaching over 60 percent (AANDC, 2012d), there is an opportunity to train the First Nations population so that they can develop skills that will allow them to obtain employment in oil and gas projects near their communities.

Poor high school graduation rates on reserves may be a contributing factor to high unemployment rates among the First Nations. Employment in the oil and gas sector typically requires a Grade 12 education (Careers in Oil and Gas, n.d.), in addition to specialized skills training. Nationally, fewer than half of First Nations youth graduate from high school, compared to nearly 80 percent of all other Canadians (AANDC, 2012a). Unlike other Canadian schools, First Nations schools on reserves are not governed by any legislation that outlines standards, outcomes, or structures. This has resulted in a patchwork of policies and agreements that do not provide an adequate foundation to support comprehensive improvement or meet accountability requirements that would ensure higher graduation rates for First Nations students. The federal government has committed to having a First Nations Education Act in place by September 2014, which would provide a framework for achieving better outcomes for students by creating standards and structures, strengthening governance and accountability, and providing mechanisms for stable, predictable, and sustainable funding. However, despite cross-country consultations with First Nations leaders, parents, and educators, the Assembly of First Nations has passed resolutions opposing the unilateral development of legislation on First Nations education (AFN, n.d.), so it remains to be seen whether the First Nations will be supportive of the proposed legislation.

After increasing high school graduation rates, helping more First Nations attain specialized training in the energy sector would help establish a viable labour force near proposed oil and gas projects. Aboriginal Affairs and Northern Development Canada has supported several pilot programs on welfare reform; however, until recently the social assistance programs on reserves were a passive cheque-cutting process whereby First Nations members would receive income assistance cheques without any requirement or
incentive to undertake skills training that would help them gain employment in or near their communities. In its 2013 budget, the federal government announced that it would invest $241 million to help First Nations youth aged 18 to 24 obtain personalized job and skills training (AANDC, 2013). This federal reform to First Nations income assistance is similar to the reforms made by provincial governments to their social assistance programs in the mid-1990s. Following these reforms, participating First Nations will only receive assistance if they enroll in training opportunities and case management programs.

It is too early to determine whether these government policies or interventions are helping more First Nations members obtain employment in the oil and gas sector, but industry partners are also contributing to skills training for First Nations. Resource companies have been investing in First Nations education and training in the oil and gas sector over the past decade. For example, Husky Energy alone has invested over $1 million in oil and gas sector education and skills training for First Nations communities (Husky Energy, 2013), and Enbridge has created educational training programs for First Nations communities located near their projects (Enbridge, 2013). These types of employment and training agreements can be an important mechanism by which unemployed First Nations members are linked with jobs near their communities.

Training and education aside, one of the most important components of a successful oil and gas project in or around a First Nations community is a positive relationship between the First Nations and industry members. Despite the potential for economic prosperity, there are many First Nations communities that are opposed to resource development. Many of these First Nations have utilized the courts to delay and halt resource development. The courts have also created doctrines, such as the “duty to consult,” that have expanded the rights of the First Nations. In 2004, the Supreme Court of Canada, through the Haida and Taku River decisions, ruled that governments have a “common law duty to consult, and, where appropriate, accommodate when Crown conduct may adversely impact established or potential Aboriginal and Treaty rights” (AANDC, 2009). The reference to aboriginal and treaty rights is from section 35 of the Constitution, which states that “the existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed ... ‘treaty rights’ includes rights that now exist by way of land claims agreements or may be so acquired.” However, the Constitution does not define what constitutes an aboriginal or a treaty right.

As Dwight Newman (2009) demonstrates in his book The Duty to Consult: New Relationships with Aboriginal Peoples, the duty to consult is not specifically written in the Canadian Constitution. Instead, section 35 “merely recognized and affirmed rights that existed prior to European settlement”
and, therefore, the definition of section 35 rights “has been left to negotiations and to the courts.” Unfortunately, because most governments have not created specific procedures or policies surrounding the duty to consult, corporations are left to develop their own consultation policies and procedures. As Newman states, “the development of policies by corporations may also implicitly affect the normative framework within which the duty to consult operates ... corporate policies may fundamentally shape the way legal norms are applied and, indeed, involve corporations in what are, in essence, law making processes.” Until governments, both provincial and federal, outline specific policies and methods to fulfill the duty to consult, there will continue to be ambiguity for industry partners regarding how to fulfill that duty. Further, this lack of clarity on policy and process will result in First Nations continually turning to the courts to define the duty to consult and corresponding rights.

As has been noted above, there is not a single oil or gas project under proposal in western Canada that does not affect at least one First Nations community, and the willingness of these communities to participate in energy development can be the factor that determines the success of a project. Both the developers and the First Nations need to be willing partners; when they are, it is possible to build and implement an energy project that will benefit all Canadians. The Haisla Nation’s integral part in the Douglas Channel Energy Partnership (DCEP) and Kitimat liquefied natural gas (LNG) project in British Columbia is a great example of a collaborative relationship between a First Nations community and oil and gas companies that will bring new job prospects and economic prosperity to the First Nations, local communities, and Canadians generally. The Haisla Nation’s leadership and members recognized the economic potential of partnering with industry members and supporting liquefied natural gas development in their traditional territory. Chevron Apache and the Haisla Nation have been working together to push the Kitimat LNG project forward for a number of years. The government of British Columbia estimates that the Kitimat LNG project will provide over 5,000 construction and 450 operational jobs (British Columbia, n.d.). Once completed, the Kitimat LNG facility project will have the capacity to produce approximately five million metric tonnes of liquefied natural gas per year—equivalent to nearly 700 million cubic feet per day, enough to heat roughly 1.3 million average homes (AANDC, 2012c).

The DCEP project will be able to connect to existing gas pipelines, electrical power, and roads in the Kitimat area. The facility is designed to convert up to 125 million standard cubic feet per day of natural gas into approximately 900,000 tonnes per annum of LNG. The capital of the LNG facility is projected to be between $360–$450 million (British Columbia, n.d.).

Aboriginal Engagement in the Mining and Energy Sectors: Case Studies and Lessons Learned, a 2008 report by Natural Resources Canada, identifies
critical success factors in developing a positive partnerships with First Nations. By collecting feedback from energy and mining companies and aboriginal organizations on what has worked in building positive partnerships with First Nations, the report identifies five key success factors. These factors are:

1 Ensure effective communication and information sharing
   a. Communicate effectively and clearly and be prepared to engage in discussions
   b. Ensure there is transparent and open information sharing
   c. Ensure there is a continuous flow of information

2 Commit to the engagement process
   a. Need to commit to the engagement process, follow through on it, and ensure there is follow-up

3 Build capacity
   a. Ensure capacity building is done when it is required
   b. Ensure communities are involved in the capacity-building process
   c. Capacity should be built and supported throughout the life cycle of the project
   d. Capacity building may include improving governance structures
   e. Ensure funding is provided for capacity building

4 Use an open and flexible framework
   a. The engagement framework should be open, transparent, flexible, responsive, and developed using a consistent approach

5 Develop understanding of communities
   a. Ensure there is an understanding of: the values and expectations of the communities, the cultural and political complexities of the communities, and the socioeconomic, environmental, health, and cultural situation of the communities

Given these five critical success factors, it is clear that communication and transparency are important to both industry and aboriginal groups in a successful partnership. However, as noted above, in order for any communication and project to be successful, both First Nations and industry members need to be willing partners.
Conclusion

Combined, the unique demographics of First Nations communities, their proximity to energy development, the high levels of unemployment on reserves, and the desire of energy developers to invest in training and education for First Nations youth have resulted in a unique opportunity for Canada—one that cannot be dismissed or overlooked.

This study has shown that every energy project that is currently under proposal in western Canada affects at least one First Nations community. These communities have a young, unemployed population that can serve as a labour force for the proposed projects. Canada’s First Nations population is growing six times faster than its non-aboriginal population, has a median age of 26 (compared to the non-aboriginal median of 41), and has an average unemployment rate of 23 percent (compared to national average of 7.1 percent). Through targeted skills training and positive relationships between industry and First Nations, there is an opportunity to employ the untapped labour force in Canada’s young First Nations communities and bring prosperity to them and all Canadians.
Appendix

**Prince Rupert LNG Project:** Prince Rupert LNG Ltd. is proposing to develop a liquefied natural gas (LNG) export facility on Ridley Island at the port of Prince Rupert, B.C. From the facility, gas sourced from northeastern British Columbia will be exported to world markets.

**LNG Canada:** LNG Canada Development Inc. is proposing the construction and operation of a natural gas liquefaction facility and marine terminal for the export of liquefied natural gas (LNG) in the District of Kitimat, B.C. The proposed project would convert natural gas to LNG, approximately 24 million tonnes per annum, for export to global markets.

**Pacific Northwest LNG:** Progress Energy Canada Ltd. is proposing to construct and operate a liquefied natural gas (LNG) facility and marine terminal near Prince Rupert, within the District of Port Edward. The Pacific Northwest LNG facility would be located on Lelu Island.

**Fortis Kingsvale:** FortisBC Energy Inc’s Kingsvale-Oliver Natural Gas Pipeline is a proposal to loop its existing natural gas transmission pipeline system between Kingsvale and Oliver over a length of approximately 161 kilometres. The project will also include the construction of a new compressor station and compression capability.

**Coastal GasLink:** TransCanada’s proposed Coastal GasLink Pipeline is a 700-kilometre natural gas pipeline from Dawson Creek, B.C., to LNG Canada’s proposed liquefied natural gas facility near Kitimat, B.C.

**Horn River:** NOVA Gas Transmission Ltd’s Horn River Natural Gas Pipeline project is an extension of its Alberta System to transport natural gas supply from the Horn River area of northeastern British Columbia to existing infrastructure. The extension consists of two parts: 1) acquiring the

existing National Energy Board-regulated Ekwan Pipeline; and 2) constructing approximately 74 kilometres of new pipeline.

**Keystone XL:** TransCanada’s proposed Keystone XL Pipeline is a 529-kilometre oil pipeline that would originate in Alberta and traverse southwestern Saskatchewan before entering the United States.

**Northern Gateway:** The Northern Gateway Pipeline project is a 525,000-barrels/day petroleum export pipeline proposal connecting Edmonton to Kitimat on the north-central coast of British Columbia. The proposal consists of a 1,170-kilometre petroleum export pipeline, a condensate import pipeline, and a marine terminal.

**MacKay River:** MacKay Operating Corp.’s proposed MacKay River project will use steam-assisted gravity drainage (SAGD) as the *in situ* thermal recovery method to produce approximately 150,000 barrels/day of bitumen west of Fort McMurray, Alberta. The project will be constructed in phases with the initial phase producing approximately 35,000 barrels/day. The project will consist of a central processing facility, well pads, water source and disposal wells, camps, borrow pits, access roads, pipelines, and utility corridors.

**Frontier:** Teck Resource’s Frontier Oil Sands Mine is a 280,000 barrels/day open-pit bitumen extraction mine in the Athabasca oil sands area of Alberta. The proposal consists of the construction and operation of co-generation facilities, reclamation and tailings storage areas, and associated infrastructure.

**Jackpine:** Shell Canada’s Jackpine Mine expansion project is a proposal to increase bitumen production at its Jackpine Mine in Alberta by 100,000 barrels/day. This expansion will include additional oil sands mining areas and associated processing facilities, utilities, and infrastructure.

**Enbridge Bakken:** Enbridge Bakken Pipeline Company Inc. is proposing the construction of 123.4-kilometre oil pipeline from Steelman, Saskatchewan, to Cromer, Manitoba. The pipeline will be designed to transport up to 145,800 barrels/day of oil.
References


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About the author

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Ravina Bains is Associate Director of the Fraser Institute Centre for Aboriginal Policy Studies. She previously served as director of policy for the federal Minister of Aboriginal Affairs and Northern Development. Bains holds an M.Sc. in Criminology and Criminal Justice from the University of Oxford, where she studied as a CN Scholar, as well as an M.A. in Asian Pacific Policy Studies from the University of British Columbia.

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The Institute is a non-profit organization. Our activities are funded by charitable donations, unrestricted grants, ticket sales, and sponsorships from events, the licensing of products for public distribution, and the sale of publications.

All research is subject to rigorous review by external experts, and is conducted and published separately from the Institute’s Board of Trustees and its donors.

The opinions expressed by the authors are those of the individuals themselves, and do not necessarily reflect those of the Institute, its Board of Trustees, its donors and supporters, or its staff. This publication in no way implies that the Fraser Institute, its trustees, or staff are in favour of, or oppose the passage of, any bill; or that they support or oppose any particular political party or candidate.

As a healthy part of public discussion among fellow citizens who desire to improve the lives of people through better public policy, the Institute welcomes evidence-focused scrutiny of the research we publish, including verification of data sources, replication of analytical methods, and intelligent debate about the practical effects of policy recommendations.
About the Fraser Institute

Our vision is a free and prosperous world where individuals benefit from greater choice, competitive markets, and personal responsibility. Our mission is to measure, study, and communicate the impact of competitive markets and government interventions on the welfare of individuals.

Founded in 1974, we are an independent Canadian research and educational organization with locations throughout North America and international partners in over 85 countries. Our work is financed by tax-deductible contributions from thousands of individuals, organizations, and foundations. In order to protect its independence, the Institute does not accept grants from government or contracts for research.

Nous envisageons un monde libre et prospère, où chaque personne bénéficie d’un plus grand choix, de marchés concurrentiels et de responsabilités individuelles. Notre mission consiste à mesurer, à étudier et à communiquer l’effet des marchés concurrentiels et des interventions gouvernementales sur le bien-être des individus.

Peer review—validating the accuracy of our research

The Fraser Institute maintains a rigorous peer review process for its research. New research, major research projects, and substantively modified research conducted by the Fraser Institute are reviewed by experts with a recognized expertise in the topic area being addressed. Whenever possible, external review is a blind process. Updates to previously reviewed research or new editions of previously reviewed research are not reviewed unless the update includes substantive or material changes in the methodology.

The review process is overseen by the directors of the Institute’s research departments who are responsible for ensuring all research published by the Institute passes through the appropriate peer review. If a dispute about the recommendations of the reviewers should arise during the Institute’s peer review process, the Institute has an Editorial Advisory Board, a panel of scholars from Canada, the United States, and Europe to whom it can turn for help in resolving the dispute.
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