Marketability of Canadian Bitumen: Challenges and Opportunities

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Abstract

The thesis examines challenges and opportunities for the Canadian oil sands industry in the three most important markets: the USA, currently the sole export destination, and the European Union and China, the two largest potential consumers of highly carbon-intensive Canadian bitumen. Gradually falling demand for oil imports and increasing carbon consciousness in the American market threaten to impose constraints on the further development of Alberta`s oil sands and prompt the industry to look for alternative export destinations. Energy security concerns in the European Union amid the crisis in Ukraine, and in China due to political instability in the Middle East trump environmental policies of the two jurisdictions and present an opportunity for the Canadian bitumen industry to tap into these markets. However, the current infrastructure constraints stemming from formidable public opposition to the construction of new oil pipelines render Canada unable to capitalize on this opportunity. The long-term future of Alberta`s oil sands is therefore far from certain.
Preface

This thesis is original, unpublished and independent work by the author Maxim Nevzorov.
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1. Introduction

The structure of the Canadian economy and its foreign trade profile have been strongly influenced by the country`s abundance of natural resources. The extractive industries have long been a major contributor to both the federal and provincial budgets, and specifically the last decade has seen Canada`s top exports shift toward products derived from and related to natural resources.\(^1\) Crude oil, which is one of the staples of the Canadian extractive industry, has arguably come to play a particularly prominent role. According to the latest estimates, Canada ranks #5 among the world`s largest crude oil producers surpassed only by Saudi Arabia, the United States, Russia and China.\(^2\) Although Canada is not self-sufficient in oil,\(^3\) it is nonetheless the 12\(^{th}\) biggest oil net exporter globally with “black gold” accounting for almost 20\% of all Canadian merchandise (tangible) exports.\(^4\) It would hardly be an exaggeration to say that the oil industry is a major driver of Canada`s economy.

It is therefore no wonder that the federal government has been receptive to the interests of Canadian oil corporations, which continue to push for further extensive development of the industry, especially the oil sands in the province of Alberta. Representing 97\% of Canada`s

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3 Half of the oil used in Canada is imported. Western Canada is self-sufficient and supplies its own oil before exporting the rest, whereas the eastern provinces rely on crude imports from Saudi Arabia, Africa and Venezuela. The construction of a pipeline system that would link Canada`s oil-rich provinces with the country`s east is deemed by the government as less cost-effective than imports (See: __. (January 25, 2012). Canada imports oil while battling over pipeline exports. CBC News. Retrieved from: http://www.cbc.ca/news/politics/canada-imports-oil-while-battling-over-pipeline-exports-1.1137804 [Accessed 25 April 2014]).

recoverable reserves of crude (173 billion barrels), Alberta’s oil sands are the third-largest petroleum reserve on the planet, smaller only than those of Saudi Arabia and Venezuela.\(^5\) Moreover, according to the calculations of the Pembina Institute based on the official statistics by National Energy Board, Alberta’s oil sands currently produce around 56% of all crude extracted in the country and that proportion is projected to grow every year.\(^6\) For example, the Canadian Association of Petroleum Producers predicts that the production of oil in Canada will more than double by 2030 to 6.7 million barrels per day and the oil sands are expected to account for most of the projected increase with a daily output growing from 1.8 million barrels in 2012 to 5.2 million barrels by 2030.\(^7\)

This thesis, however, suggests that the future of the oil sands industry is far from certain. There are both challenges and opportunities in the three most important markets: the USA, currently the sole export destination, and the European Union and China, the two largest potential consumers of Canadian crude. On the one hand, the oil sands are facing significant challenges to the marketability of their main product – bitumen, which is one of the “dirtiest” or most carbon-intensive forms of fuel.\(^8\) Average greenhouse gas emissions stemming from the production of one barrel of oil sands-derived crude are 3.2 to 4.5 times higher than those from the production


\(^{8}\) Bitumen is a heavy and viscous oil, which is extracted from oil sands (also referred to as tar sands) using unconventional techniques such as separation and upgrading (See: U.S. Department of Interior (2013). About Tar Sands. 2012 Oil Shale & Tar Sands Programmatic EIS. Retrieved from: http://ostseis.anl.gov/guide/tarsands/ [Accessed 25 July 2014]).
of a barrel of conventional oil, and its well-to-wheels (WTW) or life-cycle GHG emissions are on average 22% higher than the carbon intensity of conventional types of crude. With the growing awareness of the causes and effects of the climate change an increasing number of governments around the world acknowledge the magnitude of the problem and are taking measures to curb emissions of greenhouse gases. The current spread of carbon consciousness, which manifests itself, first and foremost, in a range of mitigation policies, especially those in the transportation sector presently accounting for 23% of global energy-related carbon dioxide emissions, is likely to decrease the demand for highly carbon-intensive sources of oil like Canadian bitumen. More specifically, environmental policies directly affecting the marketability of oil sands-derived crude have been developed in the United States and the European Union.

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On the other hand, the ever changing nature of geopolitics can prompt governments to forego their environmental policies and continue the consumption of non-conventional sources of energy either due to national energy security concerns or economic considerations. Such is the case with China, which is dependent on oil imports from unstable regions and seeks to diversify its suppliers, or Europe, where officials seem willing to sacrifice the Fuel Quality Directive in order to avoid complications in negotiations with Canada over the Comprehensive Economic and Trade Agreement (CETA). However, these are opportunities that the Canadian oil industry cannot take at the moment, because the building of the infrastructure (i.e. pipelines) that would ship Alberta`s bitumen to these alternative markets has encountered public opposition.

The thesis includes three case studies, which examine the constellation of challenges and opportunities for Canadian bitumen in each of the markets in question (the United States, the EU and China) and allow to draw generalized conclusions about the future of Alberta`s oil sands industry. The novelty of this study lies in the number of case studies covered and the combination of factors analyzed. The target audience of this research includes academic researchers, decision makers in oil companies as well as the Canadian government, and interested members of the public – including investors.

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2. Case study: the United States

2.1 Shrinking opportunities for Canadian bitumen in the key market

Canada’s most important and long-time trading partner is its closest neighbor to the south, the United States of America, which in 2012 accounted for more than a half of Canadian imports (50.6%) and roughly two thirds of Canada’s exports (74.5%). One of the most important domains of Canada’s economic cooperation with the U.S. is energy. Canada remains America’s biggest oil supplier covering around 25% of the U.S. import oil needs (2.4 million barrels per day). The United States, in its turn, is virtually the only export market for the Canadian oil industry and Alberta’s oil sands, in particular: 99% of Canadian oil exports go to America.

Evidently any further development of bitumen industry in Canada is largely dependent on the U.S. demand for oil imports. This is exactly why the Alberta provincial government and oil corporations with major operations in Canadian oil sands are alarmed by the rapidly waning demand for imports of crude in the key export market.

BP, for example, predicts that U.S. net import requirements for oil will fall by 70% by 2030. This fairly new trend can be attributed first and foremost to the recent ‘shale revolution’ in the United States, thanks to which America’s own oil output has been rapidly increasing since 2006.

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It is estimated that by 2015 the US will surpass Russia and Saudi Arabia to become the largest oil producer in the world.\textsuperscript{18} Moreover, the ongoing U.S. oil boom is supplying the domestic market predominantly with tight oil,\textsuperscript{19} which due to its physical properties (lower density) is easier to refine than Canadian bitumen. The continuously growing supply of this domestically produced lighter crude is going to drive its price down and thus make it more attractive for American refineries, which have so far preferred heavy oil from Alberta because of its low cost.\textsuperscript{20}

However, the burgeoning domestic oil production is not the only reason for the projected decline in U.S. demand for oil imports. Over the past five years oil consumption in the United States has fallen by 8.4\% and is expected to decline further through 2035.\textsuperscript{21} At the heart of this trend is a substantial decrease in demand for transportation fuels, which account for more than 70\% of all oil consumed in America.\textsuperscript{22} Demand for gasoline has been driven down by the new stringent fuel efficiency standards issued by the Obama administration in 2012. These standards require the U.S. automakers to nearly double the average fuel efficiency of their cars and trucks to 54.5


miles per gallon by 2025. Thirteen major car manufacturers, which together account for over 90% of all cars sold in the United States, endorsed the regulation that pushes them to significantly improve the mileage of their popular models and step up development of electrified vehicles. Furthermore, contrary to the expectations of major auto dealers, who feared a slump in revenues due to falling demand amid rising prices for more environmentally friendly cars, opinion polls showed that 85% of Americans support the new requirements for automobile producers and 88% of the respondents see fuel economy as an important factor in their next vehicle purchase.

Most importantly, however, Obama Administration’s fuel economy standards are set to substantially contribute to environmental protection and climate change mitigation. According to the estimates of the U.S. federal government, over the life of the program oil consumption in the United States will be reduced by 12 billion barrels leading to a 50% reduction of greenhouse gas emissions from the transportation sector by 2025. This is just one of the examples demonstrating that the United States is moving towards a more carbon conscious economy - a trend which has the potential to put new constraints on the imports of Canadian bitumen and therefore the development of Alberta’s oil sands industry.
2.2 Environmental politics in the USA and its impact on Alberta’s oil sands industry

The United States has often been criticized for its environmental record not commensurate with the nation’s status as one of the world’s most advanced economies. The notorious non-ratification of the UN-led Kyoto protocol by the U.S. Senate, for example, drew a lot of criticism from the international community and environmental groups around the globe, which condemned the world’s second biggest emitter of greenhouse gases for not contributing to the solution of the climate change problem. Although fairly well supported by the American public, the ratification of the Protocol faced a “formidable” opposition on the part of the U.S. business community led by America’s major trade and industry associations, which argued that climate action would trigger a rise in energy prices and thus inevitably affect the competitiveness of the American economy in an adverse way - an argument that for many Americans was close to home.27

The United States’ political institutions are also an important factor leading to the country’s inaction in regards to climate change.28 Firstly, due to the lack of party discipline, members of the U.S. Congress, Republicans and Democrats alike, primarily work towards defending the short-term economic interests of their constituencies. Secondly, there is a lot of scepticism among U.S. congressmen, most notably the Republicans, about the soundness of the data and analysis put forward by climate scientists. And last but not least, due to the separation of powers, a central feature of the U.S. political system, climate action may be hindered by conflicting positions of the legislature and the executive. This is exactly what happened when President

28 Ibid.
Clinton`s support for the ratification of the Kyoto protocol was crippled by the opposition in the Senate, which sought to protect U.S. business interests and declined to provide its “advice and consent” to the treaty.

Nevertheless, according to Harrison, the election of Barack Obama as the U.S. President presented a unique opportunity for more resolute action in regards to climate change. Speaking at a climate conference in Los Angeles in 2008 Obama declared that his “presidency will mark a new chapter in America’s leadership on climate change”. Despite the biggest economic crisis in U.S. history since the Great Depression the new administration did take measures to improve the country`s record on climate change mitigation. In 2009 the federal government increased the fuel efficiency standards for cars toward the goal of 35 miles per gallon by 2020 and allocated $80 billion for renewable and clean energy investment as part of the American Recovery and Reinvestment Act. Since the beginning of Barack Obama`s first presidential term, the United States increased solar generation by more than ten-fold and tripled electricity production from wind power, according to the White House. In his second term as U.S. President Obama has been even more active on the environmental front. In June 2013 the White House issued the President`s Climate Action Plan, which outlines specific measures necessary to accomplish three major tasks: cut carbon pollution in America, prepare the United States for the impacts of climate change, and lead international efforts to combat global climate change and prepare for its

impacts.\textsuperscript{32} Stringent fuel efficiency standards for American vehicles and promotion of clean energy in the country are just some of the measures envisaged in Obama`s Climate Action Plan.

In June 2014 the U.S. Environmental Protection Agency (EPA) announced a plan to cut carbon emissions from the power generation sector by 30\% below 2005 levels by 2030.\textsuperscript{33} Coal-fired power plants, which currently generate almost 40\% of electricity in America, will be hit hardest by the proposed measures. EPA estimates that the new rules will not cause electricity prices to spike, but on the contrary will reduce electricity bills by 8\% thanks to improved energy efficiency. The implementation of the plan will occur at the state level, where governments will choose how to compensate for the reduction in energy production by coal plants: switching to natural gas, expanding renewable energies or moving towards cap-and-trade. This significant step towards a more stringent climate mitigation policy is yet another manifestation of the growing carbon consciousness in the United States, which finds increasing support among the U.S. business community and general public due to their improved awareness of the causes and adverse effects of the climate change for the economy and many American households.\textsuperscript{34}

It also should be noted that while climate change mitigation has relatively recently become an important part of the agenda at the federal level of American politics, some U.S. states have long been active on the climate front unilaterally pursuing aggressive environmental policies. For instance, California has been leading the way with its novel approach to controlling greenhouse gas emissions. In 2007 the government of California became the first jurisdiction in the world to


adopt a Low Carbon Fuel Standard (LCFS), which assesses the carbon content of petroleum-based fuels on a life-cycle basis (“well to wheels” including transport to California) and requires fuel producers to gradually reduce the carbon intensity of their products culminating in a 10% reduction by 2020 or buy LCFS credits from other companies developing low carbon fuels. The LCFS therefore seeks to reduce GHG emissions from the transportation sector and encourage investment and innovation in alternative fuels. Since its inception in 2007 California`s LCFS has been challenged in courts by petroleum refiners, ethanol producers and other interest and lobbying groups, which argue that the legislation discriminates against businesses located outside of California and thus violates the U.S. interstate commerce clause. However, the government in Sacramento has so far won all the cases against its fuel standards and as of today the LCFS remains in effect. 

Needless to say, the new fuel standards in California also caused concerns in Edmonton and Ottawa, since the LCFS discourages Californian refineries from using Alberta`s carbon intensive oil sands crude for fuel production. Canadian bitumen only represents 1% of California`s total crude oil supply, but the oil sands industry in Alberta has been counting on the future potential of

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this U.S. state`s market as America`s biggest consumer of gasoline.\(^{39}\) However, what Alberta-based oil corporations seem to be much more concerned about is that other U.S. states will follow California`s example and adopt LCFSs of their own. These fears are more than reasonable. In 2009, eleven U.S. Northeast and Mid-Atlantic states signed a memorandum of understanding committing to work together toward a regional low carbon fuel program.\(^{40}\) Moreover, in 2013 governors of Washington, Oregon and California, along with the Premier of British Columbia signed the Pacific Coast Action Plan on Climate and Energy, which envisages collaboration on a whole range of climate change mitigation measures including the creation of “an integrated West Coast market for low-carbon fuels”.\(^{41}\)

The aforementioned examples suggest that low carbon fuel standards are increasingly likely to spread to other U.S. states, thus shrinking the market for Canadian oil derived from bitumen. It is therefore hardly surprising that governments in both Edmonton and Ottawa as well as big oil corporations with major interests in the oil sands industry have been lobbying against California`s LCFS and threatening Sacramento with litigation. The Climate Action Network Canada reports that Canadian officials including Ambassador to the United States, Alberta`s Premier and Canada`s Natural Resources Minister on several occasions publicly criticized the


LCFS as discriminatory and called upon the Californian government to amend the legislation.\textsuperscript{42} Such oil giants as BP and Shell launched legal challenges against California’s low-carbon legislation, which interferes with the companies’ interests in Alberta’s oil sands and U.S. refining industries.\textsuperscript{43}

Although California has so far managed to defend its innovative policy in American courts, it is still not entirely clear whether the LCFS would withstand a NAFTA or WTO challenge. Some legal analysts believe that carbon tariffs, such as the fuel standards in question, could theoretically be compatible with WTO and GATT rules, if they do not contradict the central principle of non-discrimination.\textsuperscript{44} In this case it would be necessary to prove that these tariffs are not “an illegal disguised restriction on international trade”, and the final decision would primarily depend on the panel’s interpretation of the purposes of the challenged legislation. California’s LCFS might also qualify for exception under GATT Article XX(b) or (g), which apply to measures “necessary to protect human, animal or plant life or health” or “relating to the conservation of exhaustible natural resources”.\textsuperscript{45} However, it would not be easy to establish that the LCFS is indispensable to meet those goals, as there are less restrictive means already available. As for the conformity of the LCFS to NAFTA rules, California is much more likely to


win a case here - considering previous decisions on similar disputes. For example, in *Methanex Corporation v. United States of America* a Californian law banning methanol was upheld by a NAFTA Tribunal as a legislation enacted for the sake of environmental protection.\(^{46}\)

Considering these recent developments in the American oil market and U.S. environmental politics at both federal and state levels, it can be concluded that Alberta`s oil sands industry will find it increasingly difficult not only to increase but even to maintain its current share of this key export market for bitumen. The U.S. demand for oil imports from Canada is set to wane amid booming domestic oil production, gradually falling oil consumption and spreading carbon consciousness, which discourages American businesses from purchasing highly carbon intensive bitumen-derived oil. This highlights the risk of overreliance on a single market and sets the Canadian oil industry on an existential quest for new customers. This is why the world`s biggest single market (the European Union) and the economic superpower in the making (China) are becoming increasingly appealing to Canadian oil exporters. As strange as it may seem, the U.S. might help Canada tap into these alternative markets.

**2.3 Can Keystone XL make up for the losses in the U.S. market?**

The 2008 legal battle between the Chavez government in Venezuela and America`s biggest oil company Exxon Mobil, which led to the former threatening to cut off its oil supplies to the United States caused serious energy security concerns in Washington.\(^{47}\) Later that year one of the major Canadian energy companies TransCanada proposed the 1,897-km Keystone XL pipeline

\(^{46}\) Powers, G., Derksen, A.

extension from Hardisty, Alta. to Steele City, Neb. that would bring 830,000 barrels of heavy oil per day to the refineries in the Midwest and along the Gulf Coast, thus contributing to the energy security of the United States. Yet over the past six years this project has been delayed many times and still remains in a state of limbo. Many Americans turned a sharp eye on the oil industry after the Deepwater Horizon oil spill in the Gulf of Mexico, as well as the Kalamazoo River and the Yellowstone River incidents. Therefore, TransCanada has had to deal with a heightened level of public awareness of the potential risks associated with pipelines and insufficient public confidence in the oil business. Keystone XL has also encountered strong opposition from environmental groups and landowners in Nebraska and Texas, who refuse to grant TransCanada an easement for the pipeline construction and engage in civil disobedience to stop the project.

What is more, the debate around Keystone XL has drawn unprecedented attention to Alberta’s oil sands and their impact on climate change, turning the issue into a test for Obama and his campaign pledge to address the problem of global warming. As has already been mentioned, America’s demand for oil imports is falling, which means that it does not need more Canadian bitumen for the domestic market. Therefore, if approved Keystone XL will be primarily an export pipeline that could help Alberta’s oil sands industry tap into new markets by piping its bitumen to the U.S. Gulf Coast, from where it can be loaded on super tankers and shipped

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virtually anywhere in the world. This would certainly help the oil sands maintain business as usual and possibly even develop the operations depending on the demand for bitumen in overseas markets. Thus by giving green light to Keystone XL Obama would help one of major single sources of greenhouse gas emissions to grow further.\(^{52}\)

As of today, it is difficult to predict whether the Obama Administration will ultimately approve the pipeline project. On the one hand, being in his second and last term as the U.S. President, Barack Obama presumably cares about his political legacy. Opinion polls show that Obama’s approval rating is currently at its lowest since he assumed office in 2009,\(^{53}\) so not delivering on his promise to address the climate change issue by saying yes to Keystone could discredit him even more. On the other hand, according to the latest public opinion information, the overwhelming majority of Americans (61 to 65%) favour the Keystone XL project believing that it would bring significant economic benefits to the country.\(^{54,55}\) Those in favour of the pipeline are clearly mistaken in their belief that America will benefit a lot should pipeline be built: the U.S. State Department says Keystone will only create 50 permanent jobs and increase GDP by 0.02%.\(^{56}\) This level of support for TransCanada’s project, however, means pressure on Obama,


especially now that the 2014 midterm elections are approaching. The current Administration, however, may delay the construction of the pipeline, for example by imposing new additional safety conditions,\textsuperscript{57} until the end of Obama’s second term in 2017 and “pass the buck” to the next resident of the White House, thus avoiding a decision on this highly controversial issue.

3. Case study: the European Union

3.1 The EU’s environmental policy and its potential impact on the marketability of Canadian bitumen

The European Union, currently home to 28 member states and a population of over 500 million, is the world’s largest economy, which accounts for roughly a quarter of global GDP. Although the EU is Canada’s second most important partner in goods and services after the United States, the potential of the European market has so far remained untapped by Canada’s oil industry, whose exports almost exclusively go to the neighboring USA. However, with the waning import demand for oil in the United States, the European Union is increasingly regarded by Canadian oil corporations as an alternative market. In particular, TransCanada’s Energy East Pipeline, which would ship bitumen from the landlocked oil sands in Alberta to the east coast of the country to be later delivered to Europe via tankers across the Atlantic, indicates the growing interest of the Canadian oil industry in the EU as a new consumer of its product. It should be noted though that the plans to tap into the European market may face significant hurdles stemming from the stringent environmental regulations in the EU.

The European Union has been widely recognized as a leader in environmental politics and legislation. Schreurs and Tiberghien describe the EU as an ‘international agenda setter for climate change mitigation’ and a political entrepreneur, which has successfully encouraged other
states to take a proactive approach to addressing the issue of global warming. It was in the late 1990s that the European Union came to the forefront of international efforts to mitigate climate change, when it assumed a leadership role in the negotiations over the Kyoto Protocol pushing national governments outside Europe to commit to ambitious GHG reduction goals.

Schreurs and Tiberghien explain that the EU’s unique capacity to lead is based on several factors. Firstly, the European Union has had the institutions necessary to coalesce all EU countries around a shared environmental policy framework – the European Parliament and especially the European Commission, which was given the authority by the 1992 Maastricht Treaty to represent all member states of the EU in international organizations and negotiations on matters concerning the environment. Secondly, there has been a considerable amount of support both from the European public and the business community for resolute actions to address the problem of climate change, which among other things manifests itself in a consistently strong standing of the Green Party at the EU level. Lastly, Schreurs and Tiberghien emphasize the important role played by a group of pioneering states such as Germany and the United Kingdom, whose innovation in environmental policy making sets an example for other European countries to follow.

The Federal Republic of Germany, for example, has been pursuing Energiewende or ‘energy transition’, a highly ambitious policy aimed at increasing the share of renewables in its national energy mix to 60% by 2035. As a matter of fact, Germany’s energy transition has already

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yielded results: the first quarter of 2014 saw renewable sources of energy such as wind, solar and hydro power as well as biofuels meet 27% of the country`s electricity demand, which is an all-time record high. Moreover, on certain days renewables generated as much as 74% of electricity in Germany.

As far as the pioneering role of the United Kingdom is concerned, the British government was the first worldwide to introduce a voluntary nationwide scheme for CO2 emissions trading. The U.K.`s forward-looking policy initiative proved to be a success and its experience provided the basis for the European Union Emissions Trading System (ETS). Launched in 2005, it became the world`s first and largest international carbon pricing mechanism of this kind. And although presently it only covers greenhouse gas emissions stemming from electricity generation, industrial operations and domestic aviation, the ETS has evolved into a major pillar of the EU`s climate policy and, in particular, an important tool in achieving the ambitious goals of the 20-20-20 by 2020 strategy: reduction of GHG emissions by 20%, 20% of renewables in the energy grid and reduction of energy consumption by 20% in comparison to 1990 levels.

The aforementioned policies pursued by particular EU member states and the Union as a whole are evidence of the increasing eco-friendliness and carbon consciousness of the European market, but they hardly have any direct effect on the marketability of Alberta`s bitumen in the EU.

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countries. What could, however, prevent Canada from exporting oil sands-derived oil to the other side of the Atlantic is the Fuel Quality Directive (FQD) adopted in 2009. As opposed to the ETS, the FQD regulates GHG emissions in the road transportation sector, applying to all petrol, diesel and biofuels.\(^65\) In particular, the directive aims to decrease the greenhouse gas intensity of fuels by 6\% by 2020 and establishes a life-cycle assessment to calculate the emissions from the extraction, processing and distribution of fuels. The FQD implies that European refineries using oil of higher carbon intensity for fuel production would face financial penalties. In particular, oil sands-derived fuel is given a much higher GHG rating (22\% higher) than other fuels made from conventional oil, which would create disincentives for the EU countries to import unconventional crude, including bitumen.\(^66\) As of today, the 6\% decarbonisation target is only legally binding for biofuel producers, but if the European Parliament endorses the FQD to also cover other liquid transportation fuels, it will discourage refineries in the 28 member states of the EU from buying Canadian oil coming primarily from Alberta’s oil sands. Due to the fact that Canada currently exports negligible amounts of its oil to markets other than the U.S., the FQD will not have any direct economic impact on the Canadian oil industry in the short term. It could, however, deprive Alberta-based oil corporations of the opportunity to tap into the world’s largest market and most importantly indirectly impact Obama’s decision on the Keystone XL project by stigmatizing Canadian bitumen.\(^67\)


Canada has been strongly opposing the FQD. The Canadian government claims that the directive is non-scientific and discriminatory in that it ‘unfairly stigmatizes’ oil sands as a separate high-GHG intensive ‘feedstock’ without individually examining the greenhouse gas intensity of conventional oils and heavy crude already imported by the EU, which it bundles in one category.\footnote{NRC (2012). Fuel Quality Directive. \textit{Natural Resources Canada}. Retrieved from: \url{https://www.nrcan.gc.ca/media-room/backgrounders/2012/3239} [Accessed 10 July 2014].} Moreover, Natural Resources Canada argues that the directive ‘penalizes’ oil-producing countries with transparent GHG reporting and ‘rewards’ those, which do not disclose this kind of data. In order to challenge the FQD the Canadian government commissioned a consulting firm ICF International to conduct an independent study of the proposed EU legislation. The findings show that the FQD, in fact, lacks differentiation, i.e. it would be more appropriate to categorize each individual crude and not bundle them in groups.\footnote{Partington, P.J. (November 14, 2013). Ottawa’s underwhelming swipe at Europe’s Fuel Quality Directive. \textit{Pembina Institute}. Retrieved from: \url{http://www.pembina.org/blog/763} [Accessed 16 July 2014].} However, the study also demonstrates that average emissions for oil sands-derived oil are still much higher than those for conventional crudes, which basically supports the general soundness of the FQD approach.

It should be noted, however, that although a 6% decarbonisation target for biofuels as part of the FQD was passed into law in 2009, the implementation of the same measures for other liquid transportation fuels has been delayed since 2011. There seems to be at least several reasons for the delay. Firstly, the Canadian government has made a lot of effort over the last few years to cripple the FQD. According to the Climate Action Network Canada, both Ottawa and the provincial government of Alberta have systematically lobbied against the directive.\footnote{CANC (2010). The Tar Sands’ Long Shadow: Canada’s Campaign to Kill Climate Policies Outside Our Borders, p.10. \textit{Climate Action Network Canada}. Retrieved from: \url{http://climateactionnetwork.ca/archive/e/publications/can-tar-sands-long-shadow.pdf} [Accessed 16 July 2014].} It is claimed, for instance, that soon after the EU’s policy initiative was announced for the first time,
Canada created a special task force, the Pan-European Oil Sands Team, which focused on organization of high-level meetings between Canadian oil industry lobbyists and European officials. Secondly, the legislation still lacks support from a group of key European countries, including the United Kingdom, France and the Netherlands, whose oil corporations – BP, Total and Royal Dutch Shell - all have major operations in Alberta’s oil sands. What is more, there is a reason to believe that at least some of these countries might be directly involved in lobbying against the directive. The Guardian newspaper, for example, claimed in 2011 that it had revealed “secret support at the highest levels of the UK government for Canada’s campaign against the FQD, while British ministers were being lobbied by Shell and BP”.

As of today, it appears that the interests of Canada and/or major European oil corporations have prevailed. The white paper of the new EU 2030 climate plan, presented by the European Commission in January 2014, calls for an end to the 6% decarbonisation target for transport fuels as part of the Fuel Quality Directive. European civil society groups and biofuel industry have been actively opposing the new climate plan. In January 2014 fourteen organizations including European Biodiesel Board, European Environmental Bureau, Institute for European Environmental Policy, WWF, European Climate Foundation and Transport & Environment wrote an open letter to José Manuel Barroso, the President of the European Commission, urging

71 Donald, R.
72 In February 2012 these three EU countries did not support the draft fuel law in a vote. See: Fekete, J. “Canada lobbies against proposed European fuel law”.
him to save the Fuel Quality Directive. They emphasized the crucial importance of the FQD and its 6% decarbonisation target to keep the rapidly rising GHG emissions in the EU in check and promote sustainable biofuels in a 2030 climate and energy framework. Moreover, some European countries, including the UK, have seen pressure from civil society campaigns in support of the FQD and against imports of Canadian oil into the EU. For example, the UK Tar Sands Network and Keep Tar Sands Out of Europe campaign, which unites fifteen environmental and civil society groups, have been urging the British government to vote in favour of the Fuel Quality Directive in the European Parliament in order to prevent Alberta’s bitumen from being shipped to Europe. However, after the latest European elections in May 2014 the prospects for a decision in favour of the FQD are questionable. With conservative and Euro-sceptic parties now holding the majority of seats in the EU’s legislature it may be more challenging than ever for the European Parliament to deliver ambitious environmental action.

Moreover, the EU authorities are unlikely to face any heavy pressure from the general public to act decisively on the environmental front, since the overwhelming majority of Europeans are

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currently much more concerned about economy-related issues than the environment and the climate.\textsuperscript{79}

The future of the FQD seems even more uncertain as in addition to the strong opposition of the Canadian government, the lobbying efforts of major European oil corporations and the ambiguity about the European Parliament’s ability to act decisively on climate and environment the EU’s environmental policy may face much stronger challenges. The pending Canada-EU Comprehensive Economic and Trade Agreement (CETA) and growing concerns about the energy security in Europe amid the conflict in Ukraine are likely to trump the FQD and open the EU market for Canadian oil.

\textbf{3.2 FQD vs. trade and geopolitics: fighting a losing battle?}

In October 2013 Canadian Prime Minister Stephen Harper and European Commission President Jose Manual Barroso signed an agreement in principle on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union.\textsuperscript{80} The leader of Canada’s Conservative government praised the deal expected to be ratified in 2015 as the biggest one the country has ever made. According to a joint study, Canada-EU bilateral trade will increase by an estimated 20 per cent, add a $12-billion boost to the Canadian economy and create 80,000 new

\textsuperscript{79} The latest Eurobarometer opinion survey by the European Commission shows that inflation (41%) and unemployment (22%) are the biggest problems Europeans are facing today. On the contrary, only 5% of those questioned are concerned about the issues related to the environment and the climate. See: __. (2013). Eurobaromètre Standard 79. L’Opinion Publique Dans l’Union Européenne, p. 16-17. Commission européenne. Retrieved from: \url{http://ec.europa.eu/public_opinion/archives/eb/eb79/eb79_publ_fr.pdf} [Accessed 10 August 2014].

jobs.\textsuperscript{81} As for the EU, a successful conclusion of the agreement will mean to the Union much more than just a preferential access to the Canadian market for 28 European economies and the economic opportunities it entails. CETA is expected to have broad implications for the trade negotiations between the European Union and the United States of America on the proposed Trans-Atlantic Trade and Investment Partnership (TTIP) agreement.\textsuperscript{82} Moreover, TTIP, in its turn, would not only provide European businesses with new opportunities in the world’s most powerful economy, but could potentially pave the way for the integration of NAFTA and TTIP, thus creating a bloc that accounts for more than 50% of the global trade. It is apparent that for the European economy, which has been experiencing a major slowdown in the years following the 2008 financial crisis, trade deals with North America open exciting long-term opportunities for growth.

Given the importance of CETA and its far-reaching implications for the economies of the EU member countries, the odds are that Brussels will do everything it can to ensure that the trade deal with Canada is implemented. This clearly provides the Canadian government with an opportunity to use CETA in the negotiations with the Union as a leverage against the FQD. As a matter of fact, the EU authorities already seem to be willing to sacrifice the Fuel Quality Directive for the sake of trade relations with the North American market.\textsuperscript{83} Furthermore, it should be noted that CETA is a second generation trade agreement with a focus on non-tariff barriers including standards, procedures and regulations as well as liberalization in the spheres of


\textsuperscript{83} Donald, R.
public procurement, agriculture, labour, health and the environment.  

This virtually means that even in the unlikely event that Brussels has enough political will to proceed with the FQD, under the provisions of CETA relating to investment protection Canadian companies and jurisdictions will be able to challenge European legislation it deems discriminatory. According to Scott Sinclair from the Canadian Centre for Policy Alternatives, “the risks that the CETA investment protection provisions pose to environmental protection, particularly in controversial matters such as oil sands regulation, are significant”. The FQD is highly likely to become a target of litigation just the way environmental policy in Canada has been challenged multiple times by US companies under the investor protection provisions of the NAFTA.

However, the latest political developments in Europe suggest that there may be no need for litigation as the EU itself may be willing to scrap the proposed FQD regulations concerning the carbon intensity of imported oil, which threaten to block Canadian bitumen from entering the European market. The ongoing political crisis in Ukraine, a country through whose territory Russia delivers oil and natural gas to Europe via a system of pipelines, not only rekindled fears among European governments of major disruptions in energy supplies like those during the so-called “gas wars” between Moscow and Kiev in 2006 and 2009, but also sparked a debate about Europe’s dependency on energy imports from Russia and the kind of economic and political

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leverage it can be in the hands of the Kremlin.\textsuperscript{87} Statistics show that the EU does, in fact, extensively rely on Russia for energy imports: 35% of oil and 30% of gas used in the European Union are of Russian origin.\textsuperscript{88} Moreover, individual EU countries are dependent on Russian energy supplies to an even greater extent: for instance, Germany, the EU`s largest economy and political powerhouse, imports 40% of its gas and oil from Russia,\textsuperscript{89} whereas such EU member states as Lithuania, Estonia, Finland and Latvia are 100% dependent on Russian gas supplies.\textsuperscript{90} European governments are therefore increasingly worried about their vulnerability to Moscow`s control over energy supplies and the way the Kremlin can take advantage of it to advance its geopolitical interests.\textsuperscript{91}

Europe`s dependence on energy imports from Russia has long been a reason for concern in Brussels, however, only now amid the crisis in Ukraine the EU seems to be ready to take resolute actions to free itself from Moscow`s shackles. In May 2014 energy ministers of the G7 member


\textsuperscript{91} Some analysts argue that Russia has been amassing bilateral energy deals with EU countries to create disunity among the member states on the Union`s energy security, which later allowed Moscow to “preemptively block European attempts to construct transport routes for Caspian and Central Asian oil and gas that do not involve Russia” (See: Baran, Z. (2007). EU Energy Security: Time to End Russian Leverage, p.131. \textit{The Washington Quarterly}. Retrieved from: http://moodle.bbk.ac.uk/pluginfile.php/23112/mod_page/content/58/07autumn_baran.pdf [Accessed 20 August 2014]). Another example, which illustrates how the Kremlin uses its energy exports as a political leverage, is the deal between Vladimir Putin and the former Ukrainian President Viktor Yanukovych that stipulated major economic assistance to the Government of Ukraine and a 30% discount on Russian gas supplies. This deal is believed to have been an instrument to make Ukraine stop pursuing closer economic ties with the EU and stay under Russia`s influence (See: __. (December 17, 2013). Russia offers Ukraine major economic assistance. \textit{BBC News}. Retrieved from: http://www.bbc.com/news/world-europe-25411118 [Accessed 20 August 2014]).
countries agreed on a plan “to eliminate Europe’s reliance on Russian oil and gas over the longer term and prevent energy security being used as political bargaining chip by the Kremlin”.\(^92\) The EU is now clearly trying to diversify away from Russian oil and gas and find alternative and reliable sources of energy imports. This is why Canada is getting increasingly more attention from European governments. During a joint press conference with Canadian Prime Minister Stephen Harper in Berlin in late March 2014, German Chancellor Angela Merkel commented on the current EU’s energy security concerns saying that there would be “a new look at energy policy as a whole” and later, while discussing the pending Canada-EU trade deal, added that Canada as a country abundant in natural resources was a "very interesting partner" for Germany and the EU.\(^93\) Polish officials were even more specific in explaining how Canada can help Europe uncouple from Moscow. Poland’s ambassador to Ottawa, Marcin Bosacki said that the idea of importing Alberta’s oil and gas “is being shared in a growing number of European capitals in the last two months since the Crimea invasion”.\(^94\)

It is therefore hardly surprising that, according to the latest media reports, the European Commission is backing away from the FQD’s regulation that would label oil sands-derived oil as particularly carbon intensive and suggests instead to “require refiners to report emissions on their feedstock regardless of the source of the crude”.\(^95\) While the new proposal of the Commission is


still being worked out, it is already clear that the EU is ready to lower its environmental standards for the sake of energy security and diversification of energy imports. This is certainly a big win for the Harper government and a big opportunity for the Canadian energy sector and Alberta’s oil sands, in particular.

3.3 **Canada can export bitumen to Europe, but from where exactly?**

The souring relations between the EU and Russia over the crisis in Ukraine and the subsequent decision of the Union to diversify away from the energy cooperation with Moscow clearly caused a change of heart in Europe on Canadian crude – an opportunity Ottawa now seems to be trying to capitalize on. However, even with the European market now willing to import crude from Alberta’s oil sands, Canada is not likely to become an important oil supplier to the EU in the near future due to the lack of necessary infrastructure.\(^96\) Two major pipeline projects have been proposed to deliver bitumen from the landlocked Alberta to the Atlantic coast, from where it can be shipped to international markets including the EU. Both projects, however, are currently in a state of limbo due to strong public opposition.

TransCanada’s 4,600-kilometre Energy East Pipeline would carry 1.1-million barrels of crude per day from Hardisty, Alta. to refineries in Eastern Canada and marine terminals in the Québec City and Saint John, NB.\(^97\) Although the project is expected to be completed by 2018, there is

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still a risk that it can be delayed indefinitely. There is enough political support for Energy East in Alberta, Ottawa and New Brunswick, where officials emphasize the economic significance of the project for all provinces involved,\(^98\) whereas Ontario and Quebec are still skeptical of the pipeline`s benefits for their economies.\(^99\)\(^100\) Moreover, Canadian environmental groups criticize the project for being primarily an export pipeline that will bring more risks than rewards to eastern Canada.\(^101\) And most importantly, Energy East will definitely face strong opposition from some 70 First Nations, whose leaders agreed to launch a campaign against TransCanada`s ambitious plans.\(^102\)

Another pipeline project that could help Canadian bitumen reach the European market involves expansion and reversal of Enbridge`s Line 9, which would bring oil sands crude through the U.S. territory to Montreal, coupled with reversal of ExxonMobil`s 63-year old Portland-Montreal pipeline that would allow producers to pipe bitumen to the state of Maine and send it overseas

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via tankers. However, numerous communities in the United States and Canada are increasingly concerned about the potential risks of this project for the environment and public health, keeping in mind the devastating impact of the oil spill from the Enbridge pipeline Line 6B in the Kalamazoo River in 2010, the largest inland oil spill in U.S. history, which has not been fully cleaned up yet. It is therefore hardly surprising that both Line 9 and Portland-Montreal pipeline projects have been facing growing opposition from the public and local politicians. In Ontario, for example, protesters plan to disrupt and stop work on Line 9 “indefinitely”. In Vermont, New Hampshire and Maine more than 30 towns, which could become a conduit for transporting Canadian bitumen, passed resolutions stating their opposition to the proposed reversal of the Portland-Montreal pipeline to help ship bitumen overseas.

The opposition to the project, however, is not only limited to the municipal level. Governor of New Hampshire Margaret Hassan has called on the US federal government to protect her state of the potential dangers of the pipeline, conduct a thorough environmental risk assessment and seek a Presidential Permit for the implementation of the project.

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All things considered, as of today the future of both Energy East and Line 9/Portland-Montreal pipelines remains unclear. Neither of the projects is likely to help Alberta’s oil sands industry to tap into the European market in the near future. Yet there is an alternative to shipping bitumen to Europe off the Atlantic coast of North America: oil sands could reach the European shores from the U.S. Gulf Coast. The waning U.S. demand for oil imports due to the domestic shale oil boom together with the ban against exports of U.S.-produced crude issued in response to the 1973 OPEC oil embargo presents a favorable opportunity for Canadian bitumen to be re-exported to the EU from the U.S. terminals on the Gulf Coast.\(^{109}\) Even though the Keystone XL project that could pipe crude from Alberta directly to the refineries in Texas is still in a state of limbo, the infrastructure necessary for re-export of Canadian bitumen through the United States is already in place. TransCanada’s Gulf Coast Pipeline, which connects Keystone pipeline system with Texas refineries, began delivering bitumen in January 2014.\(^{110}\) What is more, according to Transport & Environment, the first shipment of Canadian oil sands oil from the U.S. Gulf Coast already arrived in Europe on May 29, 2014.\(^{111}\) Canadian crude was supposed to be tested at Repsol’s refineries in Spain to start optimizing the process of fuel production from this unconventional feedstock.\(^{112}\) This first delivery of oil sands crude could potentially usher in

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regular supplies of bitumen to the EU, but it is too early to tell whether this would help Canada become any meaningful oil supplier for Europe.
4. Case study: China

4.1 The world’s biggest polluter is going green

As the day when China surpasses the United States to become the global economic superpower is approaching, it is getting clearer that this nation`s economic miracle comes at a big price. Decades of accelerated industrialization have led to a full-fledged environmental crisis. Devastation of natural resources, land contamination, severe air and water pollution are just some of the problems China is facing today. What is more, the environmental crisis is not just China`s problem, it has long become a global concern. Accounting for over 30% of the planet`s greenhouse gas output, China is the world`s largest source of carbon emissions and thus the biggest contributor to the climate change. Yet being a significant part of the problem, China has so far done little to help find a solution. Heggelund, Andresen and Buan explain that China`s climate policy is rendered weak by the centralized and undemocratic nature of the regime in Beijing and the political and economic considerations of the elites, which have clearly prioritized growth, poverty alleviation and social stability over the environment and the climate change issue. The authors, however, also point out that the Communist government is becoming more attentive to environmental issues, including the problem of climate change.

One of the reasons why the Chinese leadership can no longer turn a blind eye on these problems is the rapidly growing public discontent with the government`s inaction, which frequently

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translates into demonstrations and protests and thus threatens the party`s legitimacy and authority.\textsuperscript{115} Moreover, global warming is becoming an issue of China`s national security: the rising sea levels pose a direct threat to the densely populated coastline, home to China`s major economic and industrial centers such as Shanghai and Guangzhou, elevating the risk of displacing dozens of millions of people.\textsuperscript{116} China has also witnessed an increased occurrence of climate-related natural disasters such as drought and flood, which severely affect China`s rural areas and thus threaten to drive millions of people living from agriculture into poverty.\textsuperscript{117} Furthermore, the international pressure on Beijing to adopt a more aggressive domestic climate policy is intensifying as China`s economic weight is growing and as the world`s second largest carbon emitter the USA is taking commitments.\textsuperscript{118}

Recent years have seen a change in the Communist party`s approach to the environment and the climate. For example, China has been heavily investing in renewable energy in the hopes to curb carbon dioxide emissions and reduce its dependence on fossil fuels. China presently holds about 24\% of the world`s renewable power capacity and plans to further develop its alternative energy sources. In 2013 Beijing spent a total of $56.3 billion on wind, solar and other renewables (more than all of Europe) once again leading the rest of the world in renewable energy investment.\textsuperscript{119}

\textsuperscript{118} Heggelund, G., Andresen, S., Buan, I. F.
China is set to endow even more as it aims to cover 20% of its total energy demand with renewable energy by 2020.

China has also been developing carbon markets in some of its industrial regions to cut GHG emissions. According to the IEA, China will have seven regional pilot carbon markets by 2015 and is set to launch a national emissions trading scheme by the end of the decade.120 A 2013 survey among China-based experts on carbon pricing confirms the IEA’s predictions and suggests that the government will also adopt a carbon tax within the same time frame.121 Moreover, 87% of the respondents believe that “China will achieve or surpass its 2020 emissions intensity target of a 40-45% reduction in the ratio of emissions to GDP compared to the year 2005”.

While a national carbon pricing mechanism will help curb emissions from China’s industry, most importantly coal-fired power plants currently generating around 70% of the country’s electricity, it is not yet clear whether it will also apply to the transportation sector, another major source of air pollution and GHG emissions in China, whose vehicle population has been rapidly increasing due to economic growth and accelerated urbanization.122 To alleviate the environmental impact of the expanding transportation sector the Chinese government is going to impose stricter fuel economy standards. In 2013 Beijing issued new stringent fuel efficiency standards cutting the

average fuel consumption of passenger cars to 6.9L/100km.\textsuperscript{123} Moreover, in January 2014 the Chinese Ministry of Industry and Information Technology (MIIT) published the proposal for the next phase of the fuel economy standard for the years 2016 through to 2020, which envisages a 28\% average increase in the fuel efficiency of domestically manufactured and imported passenger vehicles to 5.0L/100km.\textsuperscript{124} If adopted, the stringency of the new standards would put China in third position after Europe and Japan. In addition, the government also plans to decommission up to 11 million vehicles that do not meet exhaust emission standards.\textsuperscript{125}

The aforementioned examples clearly demonstrate that China`s approach to the environment is changing for the better. It is, however, questionable whether the measures planned by the Chinese government will be enough to curb the still rapidly growing fossil fuel energy consumption. In September 2013 China overtook the United States as the world`s largest importer of oil, primarily due to its strong economic growth and rising car sales.\textsuperscript{126} Moreover, the country`s import demand for crude is projected to increase by 153\% by 2035\textsuperscript{127} - a trend very well noted by Canadian oil producers, who are looking for alternative markets amid the waning demand for their product in the USA.

4.2 China`s geopolitics of oil: a missed opportunity for Canadian bitumen?


\textsuperscript{127} Holden, M., p. 8.
The growing dependence on energy imports is seen by the Communist party as a strategic weakness. The Chinese leadership is particularly concerned about the fact that the oil imports come primarily from politically unstable regions, namely the Middle East and Africa. For example, oil supplies from five Middle Eastern countries (Saudi Arabia, Iran, Iraq, Oman and Kuwait) meet half of China`s import demand. However, in the aftermath of the Arab Spring, which revealed the potential risk of oil supply disruptions from the region, Beijing has been compelled to re-examine its “going out” strategy in the Middle East, by which it has pursued trade, investment, and energy ties across the region. With the ongoing turmoil in Iraq and political tensions between the West and Tehran over Iran`s nuclear program there is all the more reason for China to diversify its foreign oil sources and thus ensure an appropriate level of national energy security. Yet another factor that prompts China to decrease its dependence on oil imports from the Middle East are the security issues in the Strait of Malacca, one of the world`s most important waterways, through which crude from the Persian Gulf is shipped to the shores of the People`s Republic. The Chinese leadership has been concerned with the growing naval presence of the United States, Japan and India around the strait, seeing the potential for the major powers to control this strategically important waterway and China`s energy supplies coming through it.

For the reasons mentioned above China would prefer alternative oil supplies coming from politically and economically stable countries and via routes other than the Strait of Malacca. Canada could be one of those alternative energy sources for the burgeoning Chinese economy. Beijing already made it clear that it favours the idea of importing Canadian oil and Ottawa sees it as a big opportunity, especially amid the uncertainty surrounding the Keystone XL project.\(^{131}\) However, as of today Canada does not have the infrastructure necessary to ship its oil to China and it is questionable whether it will be available in the near future. Two pipeline projects, which are supposed to help Alberta ship its crude to Asia off Canada’s West Coast, have been delayed for years due to formidable opposition in British Columbia.

In 1998 one of the major Canadian energy companies, Enbridge, proposed a 1,177-km Northern Gateway pipeline from Northern Alberta to the deep-water port of Kitimat at the head of the Douglas Channel in Northern British Columbia.\(^ {132}\) Enbridge presents the $6.5 billion pipeline as “a model of world-class safety and environmental standards” and an “exciting opportunity” for both provinces. However, the majority of British Columbians, especially the First Nations of the province, through whose territories the pipeline would run, are not enthusiastic about the project. The Coastal First Nations are concerned about the risk of an oil spill, which could have disastrous consequences for the environment and thus their traditional livelihood, and doubt that in case of an incident adequate cleanup measures would be taken.\(^ {133}\) Enbridge will first have to address these concerns and take the interests of B.C. aboriginal communities more seriously in


order to seek their consent to the pipeline, which is now required according to a recent ruling of the Supreme Court of Canada.\textsuperscript{134} Otherwise the energy developer is running the risk of spending years in court defending its project against legal actions by B.C. First Nations. Moreover, Northern Gateway has been treated with reserve by the provincial government in Victoria, which laid out five conditions to be met for the pipeline to be given green light by British Columbia: those include provisions concerning the environment, Aboriginal and treaty rights, and a fair share of fiscal and economic benefits for the province.\textsuperscript{135} B.C. Premier Christy Clark also emphasized that the project can only go ahead, if it obtains the social license of British Columbians. As of today, none of the five conditions has been met,\textsuperscript{136} and the majority of the citizens of British Columbia do not approve of the pipeline with 34% staunchly opposing the project and 33% believing it needs further review.\textsuperscript{137} The recent approval of the project by the Harper government, which has always been in favour of the pipeline, does not guarantee its implementation, since Victoria may have the authority to withhold construction permits if it finds that there can be an adverse impact on the environment.\textsuperscript{138} All in all, Northern Gateway is highly likely to be delayed for many years and may even not be built at all.


Another project that could help Alberta’s oil industry tap into the Asian market is the expansion of the existing 1,150-km Trans Mountain pipeline, currently the only one linking the oil sands to Canada’s West Coast. The biggest U.S. pipeline operator, Kinder Morgan Energy Partners LP plans to increase the capacity of its Edmonton-to-Vancouver oil pipeline from 300,000 to 890,000 bpd. However, the proposed expansion has inflamed resistance in the Lower Mainland, where environmental groups, First Nations and municipal governments are concerned about the risks of increased tanker traffic in the highly urbanized area. The city of Burnaby, which in 2007 suffered an oil spill from a pipeline operated by Kinder Morgan, does not see the company as a reliable partner and staunchly opposes the Trans Mountain expansion. Moreover, Vancouver officials announced that they will ask the Federal Court of Appeal for a judicial review of the National Energy Board process for the pipeline project, which, according to the city council, should consider broader implications of the expansion including the issue of climate change. Although the debate around Trans Mountain has not yet caused as much controversy in Canadian politics as Northern Gateway did, the odds are that Kinder Morgan may soon enter a protracted legal battle over its project that will delay the implementation for years.

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Considering that neither of the above mentioned pipeline projects are likely to be realized in the near future, the Canadian oil industry will not get access to the country’s West Coast to ship bitumen to China. As Keystone XL, which could be an alternative way for Alberta’s crude to reach the Chinese shores off the U.S. Gulf Coast and via the Panama Canal, also remains in a state of limbo, Canada has virtually no ways to capitalize on the opportunity presented by China’s growing demand for oil imports and Beijing’s policy of diversifying foreign energy sources. While Canadian oil is desperately trying to find its way off the continent, China is not waiting but looking at other available options. In 2013 Beijing signed a $270-billion oil deal with Moscow, which supplements 15 million tons of crude delivered every year to China via the Eastern Siberia-Pacific Ocean (ESPO) pipeline and doubles Russia’s oil export volumes to the People’s Republic. This year’s unprecedented $400-billion gas deal between China and Russia’s energy giant Gazprom is yet another indicator that the world’s largest consumer of energy is entering a long-term cooperation with the world’s biggest net energy exporter. This obvious rapprochement between the energy sectors of China and Russia prompted the Edmonton-based Alberta Oil Magazine to suggest that although the demand for oil in the rapidly developing Asia will grow in the coming years, “Canada’s opportunity to be a key and pivotal supplier to Asian markets has probably slipped away”.

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5. Conclusion

The Canadian oil sands have entered a period of daunting challenges and uncertainty. The demand for bitumen in the industry’s only foreign market, the United States, is set to gradually decrease due to the booming domestic crude production and falling oil consumption driven by stringent fuel economy standards. America’s increasing carbon consciousness threatens to further shrink the market for Canadian bitumen: California virtually banned the oil sands from its territory with its LCFS setting a precedent for other U.S. states, and the Obama administration does not seem willing to approve the controversial Keystone XL pipeline, a project that could spur the development of Alberta’s oil sands. Therefore, the Canadian bitumen industry is set to face major development constraints and without access to alternative markets runs the risk of reaching a peak.

New opportunities lie across the Atlantic and the Pacific. The political tensions with Russia over the crisis in Ukraine compelled the European Union to rethink both its energy security and environmental policies. In its drive to diversify away from Russian oil and gas Brussels seems to be ready to change its opinion on Canadian crude and turn a blind eye to its carbon intensity, which it earlier saw as a reason for keeping oil sands out of Europe. Closer trade relations with North America are yet another reason for the EU, whose crisis-stricken economy desperately needs a boost, to cave in to Canada’s demands and weaken the Fuel Quality Directive, which, if passed into law, would seriously affect the marketability of Alberta’s crude in the world’s largest single market. In China environment is becoming a priority, but it is still less important to the Communist party than the country’s energy security, which is vital to the growth of the world’s soon-to-be economic superpower. The potential risk of oil supply disruptions due to political
instability in the Middle East or military aggression by the region’s major powers in the Strait of Malacca urges Beijing to significantly diversify its energy imports. Therefore, Canadian bitumen, no matter how carbon intensive it is, would be welcome in China, because it would be exported by a stable political regime via routes other than Malacca Strait.

However, while these opportunities to tap into alternative markets are available, Canada is unlikely to be able to use them in the near future. All of the proposed pipelines (Keystone XL, Northern Gateway, Energy East as well as the reversal of Line 9 and Portland-Montreal pipelines), which would help ship bitumen from the landlocked Alberta off the continent and toward new markets, have so far remained on paper. Formidable opposition from the public, First Nations and municipal authorities is likely to delay those projects for years – a period of time enough for the situation in the international energy markets to change, not necessarily in favour of the Canadian oil sands industry. Most importantly, however, these oil transportation infrastructure constraints create a situation where, in the long term, the growing carbon consciousness in the USA and consequently waning demand for Canadian bitumen in the only export market pose a serious threat to the development of operations in Alberta’s oil sands.

Moreover, the uncertainty about the marketability of Canadian bitumen and thus the future of the industry may well prompt those, who have endowed their money in the oil sands, to question the viability of their investments. The odds are that oil companies, pension funds, universities and other major investors will not only refrain from financing new projects, but also start divesting. Should divestment turn into a long term trend, Alberta’s capital intensive oil sands industry will face an existential challenge. Considering that the oil sands build the backbone of the Canadian oil industry, a major contributor to the national economy, one can expect that the divestment may
have broader economic consequences. It is, therefore, very important that the problems faced by the industry receive due attention at the highest level in Canada. The federal government should realize the risks of investing heavily in the oil sands and work out a national energy strategy that would help the Canadian oil industry adapt to changes in the market environment and remain competitive.
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