















Why draw the line?

Internationally and at home Canada has prided itself with a reputation. Canada was among the first to impose sanctions against the apartheid regime in South Africa, has been there to help when disaster strikes such as the earthquake in Haiti, and has sent Peacekeepers to war torn countries to protect the vulnerable and encourage and restore democracy. From our banking system to our health care system to our hockey teams, others look to us as a model.

Today, this reputation is being undermined by the oil companies extracting dirty oil from the Alberta tar sands. These companies, along with some government officials, are aggressively expanding the tar sands and pushing Canada's oil on the world and blocking effective, smart policies to fight global warming in Canada, the United States, and Europe. All the while, Canada's wilderness and wildlife, clean air and fresh water are being contaminated and destroyed. Pipelines across the United States and Canada carrying tar sands also pose major risks to the ocean, lakes and rivers, lands and wildlife. Burning tar sands oil creates more carbon pollution than conventional oil.

The time has come to draw the line

While countries like Denmark are planning their transition away from fossil fuels and building low carbon economies, Canada's economy is increasingly dependent on the ability to export oil from the tar sands. At the same time, exporting tar sands oil to countries such as the United States increases

American dependence on oil – a step backwards.

The increasing dependence on oil to drive the Canadian economy is a shortsighted plan that could hurt or inhibit other sectors (including clean energy) and makes Canada more vulnerable to the volatility of global oil prices.

Whether you define yourself as First Nations, Quebecois, Canadian, American, or a citizen of the world, the time has come to take a stand and draw the line on tar sands.













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Introduction

What comes to mind when you think of Canada? Is it the spectacular untouched wilderness? The cultural diversity and tolerance? Canada's reputation as international peacekeepers? Hockey? You may have stumbled across a backpack with a maple leaf sewn on it, only to find that the owner does not in fact bear a Canadian passport, but instead knows the value of the Canadian "brand". Canadians are considered to be nice, friendly, and on a broader scale often considered a "middle power" and an "honest broker" that plays a constructive role on the global stage.

Canada's international reputation is rooted in history. The 14th Prime Minister, Lester B. Pearson, won the Nobel Peace Prize for his role in the Suez Canal crisis. Canada spearheaded the Montreal Protocol, which curbed the use of ozone-depleting substances. The Canadian government led on the Ottawa Treaty to ban landmines. Canada was one of the first countries to sign the Kyoto Protocol. As a country, Canada has consistently been counted on to mediate in conflict zones, and was among the first western countries to impose sanctions on the apartheid regime in South Africa.

Today, however, things are changing. The current government wants to position Canada as an "Energy Superpower" which means rapidly extracting and exporting some of the most carbon intensive oil in the world. This is motivating a new direction in both domestic and foreign policy.

Domestically, the Canadian Government has failed to put in place policies to regulate greenhouse gas emissions from the oil sector, has eliminated federal support for renewable energy and climate science, has continued to subsidize the oil, coal and gas sectors, and has branded First Nations, environmental organizations, and the official opposition in Canada as, "radicals," "extremists," and even "terrorists." This increasingly hostile rhetoric is being used against anyone who challenges the rapid expansion of the tar sands and associated infrastructure.

Internationally, the Canadian Government's withdrawal from the Kyoto Protocol followed years of being singled out as a laggard at international climate negotiations. The Governments' of Canada and Alberta, along with the oil and gas industry, are now collaborating on the "Oil Sands Advocacy Strategy" that attempts to undermine or kill other jurisdictions' climate policies.

Yet the values of Canadian people have not changed—they remain rooted in a respect for our shared environment, peacekeeping and collective well-being¹. There is therefore hope that Canada will once again return to playing a constructive role in the world.



Tar Sands 101

Tar sands, also known as oil sands or natural bitumen, are a naturally occurring heavy crude oil mixed together with sand or clay and water¹. Unlike conventional crude oils, bitumen is too thick to flow on its own or be pumped². In order to move bitumen it must be heated to high temperatures, or dissolved by a chemical solvent. Once the bitumen is extracted, it must be upgraded to synthetic crude oil before it can be processed like conventional oils³.

It is the fact that tar sands do not flow freely and that the oil must be separated from the clay and sand that makes them so much more energy intensive than conventional crude oils. The need to heat or dilute and upgrade the bitumen means the process of turning into oil that can be used requires on average 23% more energy than other forms of conventional crude⁴.



Aerial View of Tar Sands

Tar sands deposits can be found around the world, with the largest known deposits in Canada and Venezuela⁵. The Canadian tar sands, found predominately in the province of Alberta, are the most developed tar sands deposit in the world and the third largest petroleum deposit globally after Saudi Arabia and Venezuela⁶. Canadian tar sands mining is done in one of two ways; surface mining is used when the tar sands are close to the surface and "in situ" techniques are used for deeper deposits to heat the bitumen and pump it to the surface. Most of the Alberta tar sands deposits that remain will require in situ extraction, the more energy intensive of the two processes^{7,8}.

Climate Change

Emissions from extracting and upgrading the tar sands are Canada's fastest growing source of greenhouse gas pollution. From 2005 to 2020, the tar sands are projected to grow nearly four times more than Canada's industrial emissions as a whole 9,10 . Based on extraction and upgrading, tar sands pollute between 3.2-4.5 times more per barrel than conventional oils produced in Canada or the United States 11 . They are being developed very quickly without any federal regulations to limit their greenhouse gas pollution 12,13 . The tar sands already have a carbon footprint comparable to Switzerland and greater than over 140 other countries in the world 14,15 . If Alberta were a country it would have the highest per capita carbon footprint in the world at 69 tonnes of CO_2 equivalents per person per year 16 — well above its closest competitor, Qatar at $^{49^{17}}$.

Water

Tar sands production requires high quantities of water, between two and four barrels for mining and about a barrel and a half for in situ techniques per barrel of oil¹⁸. Most of the water for mining tar sands comes from the Athabasca River, and because of the high toxin levels in wastewater, next to none of it can be returned to the river^{19,20}. As a result, this wastewater is either held in tailings ponds, or injected deep underground^{21,22}.

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The amount of water that is currently used in tar sands production has the potential to seriously threaten the ecosystem of the river, which not only flows into one of the world's largest freshwater deltas, but is also a central part of the lives and livelihoods of First Nations people living downstream from the tar sands^{23,24}. At current rates, tar sands production can draw up critical volumes of water during low-flow periods²⁵.

Despite four decades of tar sands development, there is very little information about the effects of the tar sands on the Athabasca River²⁶. Due to considerable criticism from a number of independent scientific panels, the Federal and Provincial governments have recently announced new plans for monitoring the sensitive aquatic ecosystem^{27,28,29}. While this new monitoring plan is a noted improvement, it will take years before the new environmental data is generated and it remains uncertain if this information will be used to inform future oilsands project approvals. In the meantime, the government continues to approve new oilsands projects³⁰.

Tailings Lakes

Tailings are waste byproducts of tar sands mining and are basically a mix of sand, clay, water, and toxins³¹. Tar sands tailings are chronically and acutely toxic to most organisms, with high concentrations of arsenic, mercury, lead, and other carcinogenic chemical byproducts of tar sands production³².

Tailings lakes are used for long-term containment of waste. These lakes currently cover over 170 square km of land and they are being filled at a rate of over 200 million litres per day^{33,34}. Even with tailings recovery systems, hydrologic modeling by industry suggests these lakes leak and seep into groundwater and the watershed at an estimate rate of 11 -12.6 million litres per day³⁵. Despite these known concerns, leakage is not well documented or studied³⁶.

Reclamation

Of 686 square km that has been affected by tar sands surface mining, only 1.04 square km is certified reclaimed³⁷. Canada's boreal forest remains one of the largest intact carbon sinks in the world. Many of the areas affected by oilsands development are over 40 percent bogs and fens, wetland systems that take thousands of years to develop. Restoration to its original state following mining, given current reclamation technologies, would be impossible in our lifetimes³⁸.

Air Pollution

In addition to global warming emissions, tar sands production releases other air pollutants including nitrogen oxide, sulphur dioxide, particulate matter, and other volatile organic compounds³⁹. These pollutants contribute to acid rain and smog and can be dangerous to human health^{40,41}. In the same way that tar sands production produces more greenhouse gas pollution than conventional oil, it also produces twice as much acid rain-forming nitrogen oxides and sulphur dioxides per barrel⁴².

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When measured against existing air quality standards in the province of Alberta, the concentration of these pollutants exceeded air quality requirements over 1,500 times in 2009 alone⁴³. The standards currently used in Alberta are below international standards for air quality⁴⁴.

First Nations

In Canada, First Nations are priority rights holders, not stakeholders. Canada is constitutionally bound to consult with First Nations on anything that impacts First Nations traditional or treaty lands⁴⁵. First Nations are increasingly pointing to specific cases in which these rights are being violated as a direct result of tar sands developments⁴⁶.

First Nations communities living downstream from the tar sands on the Athabasca River have been shown to have cancer rates 30% elevated from the general population of Alberta⁴⁷. The lives and livelihoods of these communities depend on subsistence hunting and fishing and direct impacts of water quality, aquatic ecosystem health, and other local animal populations as a result of tar sands production have not been adequately monitored in these communities⁴⁸.

Many First Nations have now called for a moratorium on any further tar sands development until adequate attention is given to the impacts on their lives and livelihoods as well as their treaty rights and human rights⁴⁹. In 2009, Canada scored 6th globally in the United Nations periodical review of human rights. However, when considered with respect to its Aboriginal peoples, the score dropped to 66th^{50,51}.

As of yet, there is no legal framework within the Constitution of Canada that recognizes the principles of Free, Prior and Informed Consent (FPIC) for the right of First Nations to say "No" to a proposed development. In 2010, Canada signed the UN Declaration on the Rights of Indigenous Peoples, however with qualification – its objection to the FPIC principles – as central tenets of the Declaration.

Cost/Economics

Canada's tar sands are the world's most expensive major source of oil and are very sensitive to the volatility of global oil prices⁵². New mining projects require an oil price of \$65-\$95 per barrel to be economic⁵³. If the price of oil rises beyond \$120 to \$150 per barrel, a demand-destroying recession could occur⁵⁴. Given this high price floor and low price ceiling, the economic viability of the tar sands industry contains very little flexibility.

Beyond the economic uncertainties of this industry, it also takes considerable time and cost for projects to begin producing oil. Many mines take many years to acquire necessary regulatory approvals and complete construction. Massive labour shortages also increase the construction and operating expenses for many operations. For instance, Imperial Oil's Kearl Mine is now projected to cost over \$28 billion dollars⁵⁵. It received regulatory approvals in 2009 and will be fully operational by 2020.



"As you know, further exploitation of the tar sands will dramatically increase the amount of greenhouse gas emissions being produced in North America. It will also ultimately make turning the clock back on climate change impossible. But you have a choice. You can use the powers that you have to halt the expansion of the tar sands and put Canada on course to do its fair share to address climate change. This decision requires some tough choices, but in the long run—and for the sake of all future citizens who do not have a say in the decisions we make today—it is the right thing to do."

- 8 Nobel Peace Prize Laureates in an letter to Prime Minister Harper, September 28, 20112

Canada is among the top ten global carbon emitters by any measure: per capita (8th), absolute (7th), and historical (10th)³. If the Province of Alberta, the home of the tar sands, were a country, it would have the highest per capita emissions in the world, at 69 tonnes of carbon dioxide equivalent per person per year^{4,5}. Despite being the home of one of the largest and fastest growing industrial oil projects on the planet, there are no federal regulations in place for greenhouse gas pollution from the tar sands, a sector that is projected to account for more than 100% of growth in Canadian emissions between now and 2020^{6,7,8}.

In addition to having no regulations to limit tar sands emissions, the Canadian Government has stopped support for clean energy deployment in Canada as well as ending all federal incentives for energy efficiency through federal programs such as the ecoEnergy policy suite^{9,10}. At the same time there are ongoing subsidies and tax-breaks, funded by Canadian tax payers, of at least \$1.3 billion dollars annually for the oil and gas sector in Canada¹¹.

There is growing concern within Canada and abroad regarding the Canadian Government's failure to address concerns related to the impacts of

"[t]he tar sands remain the largest source of greenhouse gas emission growth in Canada and are the single largest reason Canada is failing to meet it's international climate commitments and failing to be a climate leader. The world needs to transition off of fossil fuels that means coal, unconventional gas, and unconventional oil all need to addressed."

> - Dr. Andrew Weaver, IPCC Climatologist, University of Victoria¹²

unfettered tar sands activities. To date, the Canadian Government has failed to take meaningful action to address these concerns and has instead responded in Canada with a series of attacks on climate science, civil society, and opposition parties in Canadian Parliament.



A lot of talk and no action

The current Canadian Government announced two climate change plans in 2007 and 2008 that were never implemented, and then in 2009 announced a plan to harmonize Canada's climate change action with the United States 13,14,15. The Government did harmonize vehicle regulations with the United States, but analysis has shown this will likely lead to little or no reductions in emissions beyond business as usual 16. The 'follow the U.S.' approach has since been replaced by a promise to follow a sector-by-sector regulatory approach to greenhouse gas emissions reductions. In 2010 the federal government announced a new target for 2020 that would see Canadian emissions remain above 1990 levels 17. This made Canada the only country to return from the United Nations Copenhagen climate negotiations and weaken their emissions reductions target 18.



First Nations in BC are opposed to Tar Sands pipelines crossing their territory. Source: Forest Ethics

The federal government's own analysis shows that implementing all currently announced federal and provincial policies will deliver only one quarter of the reductions needed to meet its own 2020 target. In other words, in order to reach a weak target of 2.88% above 1990 levels by 2020, Canada's policies for emissions reductions would have to be 10 times more ambitious¹⁹.

Canada's former Minister of the Environment, Jim Prentice, promised the European Union that regulations were on the way in 2010²⁰. More recently, industry and high-level bureaucrats at the Department of Foreign Affairs and International Trade also indicated that regulations are critical in improving the image of the tar sands as well as countering the government's worsening reputation²¹.

"How come the rest of the world is trying to reduce emissions, especially in fossil fuel production, and Canada has these plans to drastically expand the tar sands? That's really difficult to grasp."

Miguel Lovera, Paraguayan negotiator for the United Nations Framework
 Convention on Climate Change, December, 2009-22



Paying Polluters

Prime Minister Harper joined other G20 leaders in Pittsburgh in 2009 in committing to a phase-out of fossil fuel subsidies²³. In preparation for the 2010 G20 meeting in Toronto, the Prime Minister rejected a recommendation from the Canadian Department of Finance to announce a phase out of over 800 million dollars in subsidies to the oil and gas industry in Canada, which favour exploration and development for new tar sands projects²⁴. Prime Minister Harper instead chose the option that was not recommended by the Department which was designed to create the appearance of compliance without undertaking any new actions²⁵.

"I don't know if you've noticed, but they're doing just fine on their own. So instead of subsidizing yesterday's energy, let's invest in tomorrow's."

- President Obama on oil companies, State of the Union, January 201127

The federal government has taken steps to phase-out minor subsidies to the oil and gas sector, but they remain a long way from ending the current \$1.3 billion in preferential subsidies given to the sector²⁶.

"Energy markets can be thought of as suffering from appendicitis due to fossil fuel subsidies. They need to be removed for a healthy energy economy...It's also undermining the competitiveness of renewables."

- Fatih Birol, Chief Economist at the International Energy Agency, January 19, 201228

Declining Government Support for Climate Science

Beginning in 2009, Canadian media has found its access to Canada's leading government climate scientists restricted²⁹. The current government implemented communications policies that prohibit interviews with expert scientists unless communications lines have been pre-approved by communications departments and, depending on subject matter, the Prime Minister's Office³⁰. These restrictions led to an 80 per cent decline in climate change media coverage based on government scientists' expertise over the course of one year³¹.

"The Prime Minister is keen to keep control of the message, I think to ensure that the government won't be embarrassed by scientific findings of its scientists that run counter to sound environmental stewardship. I suspect the federal government would prefer that its scientists don't discuss research that points out just how serious the climate change challenge is."

Professor Thomas Pedersen,
 University of Victoria, February, 2012 34

In February 2012, six major science bodies wrote an open letter condemning government muzzling of scientists, and subsequent media coverage featured a number of respected Canadian scientists accusing the government of trying to cover up important research, including research on climate change and environmental monitoring^{32,33}.

The Canadian Government has also instigated a steady decline in support for climate research in Canada that has been complemented by an increase in appearances by climate deniers and skeptic positions in formal government sessions^{35,36}.

"I have to admit that what I read tells me that there is not a consensus among scientists. There are many different points of view and different kinds of research happening out there. One of the things that I am starting to see now is quite a few studies showing that we may be heading into a period of global cooling, which would maybe be a lot more problematic for Canada than global warming. Our country is on the cool side."

- Greene Raine, Canadian senator appointed by Prime Minister Harper, Fall, 2011³⁷

Government Attacks on Environmental Groups and First Nations

The Canadian government has recently engaged in an escalating use of aggressive rhetoric to attack those critical of the tar sands and related infrastructure like new pipelines.

"To judge from Oliver's nasty little letter, those vast pits of bitumen across Alberta aren't just dirtying the sky, they're starting to do some damage to the country's soul."

- Bill McKibben, January, 2011

On January 9, 2012, Minister of Natural Resources, Joe Oliver, wrote an open letter addressed to Canadians that was published in one of Canada's largest newspapers. This letter targeted "environmental and other radical groups [threatening] to hijack our regulatory system to achieve their radical ideological agenda³⁹." It went on to accuse these groups of being under the control of rich American interest groups aiming to undermine the Canadian economy in their own self-interest. This language was also used by the Prime Minister's office in an official written response to a citizen's inquiry regarding pipeline development⁴⁰.

Shortly following the publication of the letter, a whistle blower alleged that a foundation had been told their charitable status was at risk if they continued to fund groups opposed to the current tar sands expansion model⁴¹. This government rhetoric was even further perpetuated by the inclusion of environmental organizations in their new anti-terrorism strategy⁴², with specific reference to the envirionmental organization Greenpeace.

As part of an *Oil Sands Advocacy Strategy*, made public through access to information legislation, jointly developed with, "like-minded allies" (industries operating in the tar sands) and the Government of Alberta – the federal government also created a chart identifying, "Aboriginal Groups" and "Environmental Groups" as "adversaries" to their energy plans⁴³. In the same chart, they identified Canada's National Energy Board, an organization that is supposed to be a neutral and independent regulator of the energy sector, as an ally. First Nations, many of whom have voiced concerns about the impacts of climate change and resource development on their livelihoods and human rights, expressed alarm at the sweeping generalization⁴⁴.



Canada Withdrawal from International Climate Commitments

"The Kyoto Protocol is not only a cornerstone of the international climate regime, but a legally binding agreement under the UNFCCC and that any attempts by developed countries to casually set aside their existing legal commitments while calling for a new legally binding agreement seriously questions their credibility and sincerity in responding to the climate crisis."

- Joint statement of Ministers from Brazil, South Africa, India and China responding to the Canadian Government's withdrawal from the Kyoto Protocol, February 14, 2012⁴⁵

On December 12, 2011, Canada became the first country to formally withdrawal from the Kyoto Protocol, the only legally binding international treaty to fight global warming⁴⁶. The announcement came two weeks after media reported, on the first day of the United Nations climate negotiations in Durban, Canada's intention to pull out of the protocol⁴⁷. The Canadian government's refusal to confirm or deny the rumours while continuing to negotiate the future of the Kyoto Protocol in Durban led many countries to question publically the Canadian government's intentions and good faith in the negotiations⁴⁸.

"I was astonished and disturbed by the comments of my colleague from Canada. I am disturbed to find that a legally binding protocol to the Convention, negotiated just 14 years ago is now being junked in a cavalier manner. Countries which had signed and ratified it are walking away without even a polite goodbye."

- Jayanthi Natarajan, Minister of the Environment for India, in a statement at the United Nations Durban climate talks for which she received a standing ovation, December 2011

"Canada's position is 'disheartening.' We're very frustrated, we're sad and we're bitter and it's a very unfortunate situation. It's a scientific fact that human-induced climate change was created by [industrialized countries] having the quality of life they have today and this is the whole concept of historical responsibility. They should take leadership."

- Senyi Nafo - spokesperson for the Africa group at the United Nations climate talks in Durban, December, 2011⁵⁰

Countries had precedent for questioning the Canadian government's honesty and transparency. Canada's presentation of annual emissions to the United Nations Framework Convention on Climate Change (UNFCCC) omitted a 21 per cent increase in tar sands emissions in 2009 alone⁵¹. This omission did not go unnoticed and the Canadian government was subject to censure during a presentation of Canada's climate change action plan at a UN negotiating session⁵².



"I was also struck that the colleague from Canada didn't refer to the tarsands issue or at least only once in passing. This has been an issue featured much in the press, and I know there have been allegations from the press that the emissions from that sector have not been included in Canada's inventory (report submission to the UN)."

 Peter Betts, the lead European Union negotiator and a director at the United Kingdom's Department of Energy and Climate Change in response to the Canadian Government's presentation of their climate change plan at UN climate negotiations, June 11, 2011⁵³

The Canadian Government left Durban with its fifth consecutive "Fossil of the Year" award, given by a network of over 700 international civil society organizations from over 90 countries to the country that has done the most to undermine the global climate negotiations⁵⁴. This disregard for a United Nations treaty followed just a few months after the Canadian Government lost its campaign for a seat on the United Nations Security Council. It was the first time that Canada had sought a seat and lost, and the Canadian Government's unpopular stance on climate change was cited as one of the key reasons for the loss⁵⁵.

"Canada is effectively negotiating in bad faith, undermining the whole agreement. At least everyone else is trying to reach their Kyoto targets. Canada is doing absolutely nothing,"

-Saleemul Huq, lead author for the Intergovernmental Panel on Climate Change (IPCC), December 2009⁵⁶

"The Kyoto Protocol focuses on carbon dioxide, which is essential to life, rather than upon pollutants... the Kyoto Protocol is essentially a socialist scheme to suck money out of wealth-producing nations."

- Prime Minister Stephen Harper in a 2002 letter to supporters⁵⁷

Attacks on Foreign Climate Change and Clean Energy Policies Abroad: The Tar Sands Advocacy Strategy

The Canadian Government has an established Oil Sands Advocacy Strategy that appears to have been launched in 2009⁵⁸. There has been no public information on this strategy; as a result the information in this section has been drawn from documents obtained through Access to Information legislation. The strategy was developed by the Government of Canada in consultation with the Government

"What is at issue on the international stage is [Canada's] reputation as a country...Absent... Canadian leadership we will be cast as a posterchild for environmentally unsound resource development,"

Former Environment Minister of Canada,
 Jim Prentice, February 1, 2010⁵⁹

of Alberta and the oil industry and is run by the Department of Foreign Affairs and International Trade in close collaboration with Natural Resources Canada. The strategy includes federal bureaucrats, diplomats and

politicians with participation of elected officials from the Government of Alberta, politicians and civil servants as well as industry representatives.

This strategy appears to have been formalized following a series of interferences by the Canadian Government, the Government of Alberta and the oil industry in the Californian Low Carbon Fuel Standard, Section 526 of the U.S. Energy Independence and Security Act that requires federal agency contracts to avoid fuels with higher lifecycle greenhouse gas emissions than conventional oil, and early interventions in the European Union's Fuel Quality Directive⁶⁰.

"Canada doesn't engage itself in the domestic politics of any sovereign nation. We await the decision (and) eventual consideration."

– Environment Minister Peter Kent, February 17, 2012⁶¹

The strategy is divided into at least two subsets: the *United States Oil Sands Advocacy Strategy* and the *Pan European Oil Sands Advocacy Strategy*. The strategy's focus is improving the industry's image abroad and ensuring no doors are closed to Canada's carbon intensive tar sands oil.

The Pan European Tar Sands Advocacy Strategy

According to internal documents, the *Pan European Oil Sands Advocacy Strategy* was launched in January of 2010 in a number of Canadian Embassies in Europe. The Canadian High Commission in London is the "team leader", and members include embassies in Norway, Belgium, France, Germany and the Netherlands⁶². It is heavily focused on engagement with industry, shared communications initiatives between the Governments of Canada, Alberta and the oil industry to paint a cleaner picture of the tar sands. The strategy also includes lobbying European decision makers to weaken or undermine clean fuel policies that would reflect the scientifically-proven higher emissions of the tar sands in the labeling requirements for European transportation fuels.

The central objectives of the European tar sands advocacy strategy include:

- "To protect and advance Canadian interests related to the oil sands and broader interests in Europe, including a Canada's [sic] brand in Europe;
- To defend Canada's image as a responsible energy producer and steward of the environment including climate change issues; and
- To ensure non-discriminatory market access for oil sands derived products⁶³."

In an effort to achieve these objectives the team engaged in at least 110 lobby meetings between Canadian officials and European decision makers in an effort to weaken the Fuel Quality Directive in 2010 alone⁶⁴. The Fuel Quality Directive, a low carbon fuel standard, is an important piece of the European Union's climate change strategy that aims to reduce emissions from transportation by requiring suppliers to move towards less carbon intensive fuels⁶⁵. The Canadian tar sands advocacy strategy recognizes that, "while Europe is not an important market for oil sands derived products, European legislation/regulation, such as the EU Fuel Quality Directive, has the potential to impact the industry globally⁶⁶.

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Tar sands myth-buster	Details	
Tar sands are more CO ₂ intensive than heavy conventional crude oils	 Tar sands oil is on average 23% more carbon intensive than conventional crude oils¹; per barrel, tar sands oil is between 2.3 and 4.5 more carbon intensive than conventional crude oil². 	
Tar sands emissions do represent a serious problem for Canada and a serious problem for the global climate	 The tar sands are Canada's fastest growing source of emissions and will account for a more than a 100% of the growth in Canada's emissions between now and 2020 if expansion continues as industry projects;³ the Canadian tar sands have a emissions comparable to the country of Switzerland, and emit more than over 140 nations;⁴ Canada will be unable to meet its own 2020 target let alone its international climate commitments under Copenhagen if business as usual growth in the Tar Sands continues. 	
Recent reductions in the per barrel emissions from the tar sands will not continue, in fact intensity emissions are projected to increase	 While emissions per barrel have been reduced over recent years, for the most part these reductions were one time technological fixes and will not contribute meaningfully to further reductions in emissions intensity;⁵ the low hanging fruit for reducing emissions from the tar sands have been employed, much of the remaining tar sands projects will require in situ development, which is on average 2.5 times more energy intensive than strip mining^{6,7}. 	
Transitioning off of all fossil fuels is necessary to achieve true energy security	 True energy security in the face of global climate change means moving towards efficient use of clean, safe and renewable energy; the International Energy Agency has found that for every dollar not spent on renewable energies today, it will cost \$4.20 to make up the difference by 2020; as other jurisdictions adopt policies that support lower carbon options, Canada will lose its competitiveness in the global market. 	
First Nations concerns are not adequately addressed in tar sands projects	 First Nations are priority rights holders, not stakeholders. Canada is constitutionally bound to consult with first nations on anything that impacts First Nations traditional or treaty lands. Presently Alberta lands are leased to industry prior to the completion of an Environmental Impact Assessment and prior to consultation with First Nations.^{8,9} 	
High carbon fuels are becoming less valuable as countries live up to climate commitments and move away from highly polluting fuels	 If the U.S. and Europe reduce their imports of high carbon fuels, this fuel could be exported to Asia, but at a much lower price making it less attractive to produce high-carbon fuels¹⁰; new pipelines are not a given, as demonstrated with the Keystone XL pipeline and current debates around the Enbridge Northern Gateway pipeline that would ship oil west. This reality means that currently producers are accepting much lower than market prices because they don't have options. 	
Canada is failing to live up to its climate change commitments, internationally and domestically	 Existing policies will only take Canada one quarter of they way to their 2020 target – federal policies would have to be 10 times more ambitious to meet Canada's current weak target;¹¹ the federal government currently has no policies in place to regulate the greenhouse gas pollution from the tar sands, Canada's fastest growing source of greenhouse gas pollution.¹² 	
The Province of Alberta is not doing nearly enough to be address the environmental and climate impacts of the tar sands.	 While Alberta was the first jurisdiction in North America to apply a carbon price for large emitters, recent analysis finds this incentive has been far too low to adequately reduce pollution;¹³ over the two decades from 1990 and 2009, Alberta's greenhouse gas pollution increased dramatically (more than any other jurisdiction in North America), and the province is on track to continue that trend under current policies.¹⁴ 	
The European Fuel Quality Directive does not discriminate against Canadian tar sands	 The European Fuel Quality Directive assigns values to 'feedstocks', that is to say that oil with the same properties are treated the same no matter where they are found in the world. Tar sands in Canada are treated exactly the same way as tar sands in other parts of the world because the definition for "natural bitumen" is geographically neutral; this policy also assigns values for a number of other very high carbon intensive fuels in this policy such as coal to liquids and shale oil reflecting the EU's goal to reduce emissions from transportation fuels; if a tar sands producer can prove that their methods are cleaner, they can present the data to the European Commission and have the value changed to reflect their actual intensity value (this also acts to incentivize cleaner production). 	

The Pan European Tar Sands advocacy strategy also included:

- tours of the tar sands with European Decision makers in which, "it is important that visitors be given the opportunity to meet with NGOs and First Nations (to strengthen the credibility of the visit)" as well as ministerial and high level visits to the E.U.^{68,69};
- tar sands lobby training sessions for Canadian Diplomats in London with industry at a cost of over \$54,000 for a two day session⁷⁰;
- recommendation for the hiring of a professional public relations firm to help clean up the tar sands image in Europe as well as "glossy" promotional materials^{71,71};
- recognizing the importance of the tar sands advocacy in the context of the ongoing Canadian European Trade Agreement (CETA)⁷³;
- "targeted outreach and enhanced cooperation with companies", including "regular" meetings between Heads of Missions in European countries and: Statoil, Shell, Total, BP, Royal Bank of Scotland, and Canadian oil companies⁷⁴;
- meetings between high-level officials and ministers with European media;
- the first annual meeting of the Pan European tar sands advocacy team in London which included
 participation from: "key missions in Europe, the Department of Foreign Affairs and International Trade,
 Natural Resources Canada, Environment Canada, the Government of Alberta, senior level participation from
 the Canadian Association of Petroleum Producers, Shell, Statoil, Total, Royal Bank of Scotland, [and former
 Alberta environment Minister] Minister Liepart⁷⁵."

"We would expect hard lobbying from the oil companies, there are a lot of European companies involved in the production of oil sands. And we didn't. The part that was more active was the Canadian government,"

 Member of European Parliament Kriton Arsenis on Canadian Government lobbying against the EU Fuel Quality Directive, November 23, 2011⁷⁸

The strategy has been built and framed around solving public relations problems by creating better messaging, and ensuring that policies in other jurisdictions do not affect Canada's ability to sell carbon intensive tar sands oil, even if that requires heavy lobbying in attempts to undermine or prevent such policies. There is no mention of the Canadian Government taking concrete actions to reduce the climate, environmental and human rights impacts of the tar sands. The sole call for greenhouse gas regulations during this strategy implementation comes from industry during an advocacy team meeting⁷⁶.

"The sooner the Canadian government is able to roll out information on anticipated new regulations on coal fired generation and the oil sands, the better able Canada will be to demonstrating that it is taking action."

- Reflections from Industry representatives at a pan- European tar sands team meeting77



The strategy also includes the importance of emphasizing Canada's relationship and strong consultation processes with First Nations, while the same document characterized "Aboriginal groups" as "adversaries" 19. It identifies the need for effective engagement with non-governmental organizations for building stronger policy, and then similarly assigns environmental groups the label of "adversaries."

The Canadian Government has also made trade threats to Europe related to the Fuel Quality Directive. The European Commission has indicated that legal analysis supports the policy vis-à-vis the World Trade Organization because it is not discriminatory against Canadian tar sands⁸⁰. Media reports have revealed that the Canadian Government has also been making threats in the ongoing Canadian and European Trade Agreements regarding the Fuel Quality Directive despite public claims to the contrary^{81,82}.

"Canada has been lobbying the Commission and Member States intensively to avoid a separate default value for fuel derived from tar sands. It has raised the issue in the context of EU-Canada negotiations on a Free Trade Agreement."

- Steering note from the European Commission, June, 201083

The Pan-European Oil Sands Advocacy Strategy follows many high profile interventions and lobbying from Ministers and Canadian decision makers during the initial consultation phases for the implementation of the Fuel Quality Directive⁸⁴. Canada was the only country outside of the European Union to intervene in the consultations and Alberta's former environment minister, Rob Renner, has publically boasted about Canadian lobbying attempts to weaken European policy^{85,86}.

In a February 23rd, 2012 vote to determine the fate of the highly contested values for high-carbon fuels there was no qualified majority either for or against the policy meaning that the decision is now in the hands of publically accountable ministers. This decision was a clear indication that the scientific discussion had become politicized. Countries where the Canadian lobbying was most heavily focused, the United Kingdom, Norway, France, Germany and the Netherlands all abstained from voting either for or against the proposed implementation^{87,88}.

The United States Tar Sands Advocacy Strategy

After failing to implement a national climate change plan in 2009, the Canadian Government announced that, "it is in the best economic interest of both Canada and the U.S. to harmonize our climate change policies." It references the common North American vehicle standards that have been announced, the Clean Energy Dialogue as well as plans for a continental cap-and-trade system⁸⁹. The 2012 federal budget will include a \$90.3 million dollar funding increase with the objective to, "enhance Canada's visibility as an international leader in clean energy technology and deepen engagement with the U.S. on climate change issues." This fund will also, "seek to expand Canada's voice within the U.S. regulatory processes on climate change and ernergy impacting Canada." The reference here would be: Treasury Board of Canada, 2012 federal budget estimates¹⁰².

Further speaking points on harmonization read as though the Canadian government has decided to leave Canada's entire climate change plan in the hands of the U.S. administration:

"The North American economy is integrated to the point where it makes absolutely no sense to proceed without harmonizing and aligning a range of principles, policies, regulations and standards. We will only adopt a cap-and-trade regime if the U.S. signals that it will do the same. Canada's position on harmonization applies equally to regulation."

In the months following the harmonization announcement, the U.S tar sands advocacy strategy recognized the "real" challenges associated with tar sands growth including air pollution, land and water use, social challenges resulting from rapid growth and the "impact of this growth on other stakeholders in the region⁹¹." Concern is stated in the strategy for, "a number of legislative and regulatory initiatives in the U.S. and Europe [that] target oil sands and could potentially restrict Canada's market access in these markets⁹²."

To counter these image problems associated with the "real challenges" of the tar sands, the strategy again takes a public relations and lobbying approach rather than proposing meaningful policies to address the problems themselves. Internal government documents outline the heavy lobbying along with the Alberta Government of U.S. decision makers and "influential business people and opinion formers"."

The U.S. tar sands advocacy strategy trained U.S. Heads of Missions in Ottawa on November 10, 2010 before sending them to lobby U.S. officials in their respective regions. This training outlined challenges, including the, "perceived social impacts (e.g. Aboriginal health) gaining profile⁹⁴," but made no reference to evidence such as the most recent Government of Alberta health study that identified that cancer rates are 30 per cent higher than expected in First Nations communities living downstream from the tar sands⁹⁵.

The Canadian Government initiated its pro-tar sands lobbying in the United States through interventions against California's Low Carbon Fuel Standard and Section 526 of the U.S. Energy Independence and Security Act. Both policies aim to move towards less carbon intensive fuels and were met by near identical criticisms from the Governments of Canada and Alberta as well as the oil industry⁹⁶. Documents obtained by Climate Action Network Canada have since shown the joint development of communications and messaging by Government and industry through the tar sands advocacy strategy, with the Canadian Government acting in concert with the tar sands industry⁹⁷.

In one email, obtained through Access to Information, officials at the Canadian High Commission in Washington D.C. urge the Canadian Government to develop a communications strategy that calls for respect for "sovereignty, development of natural resources, and national environmental management⁹⁸."

The Canadian Government's de facto decision to defer to the U.S. to define the continent's approach to tackling climate change did not go according to plan when President Obama rejected a presidential permit for the construction of the Keystone XL tar sands pipeline, a pipeline that Prime Minister Harper had called "a complete no-brainer⁹⁹." This decision was based on, among other things, concerns for the climate impacts of the tar sands¹⁰⁰. The U.S. tar sands advocacy strategy makes reference to the Keystone XL pipeline discussions, but these sections of the documents obtained through Access to Information Documents are heavily

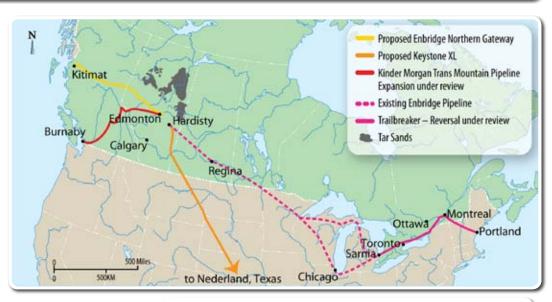
but these sections of the documents obtained through Access to Information Documents are heavily redacted 101.

Trying to Expand the Tar Sands Market: Keystone XL, Trailbreaker and Northern Gateway

"It is unclear at this point how sustained the actions of these environmental groups will be going forward here in DC. It might be that their actions were a one-off... However, it seems more the case that [they] are gearing up for a sustained campaign."

- Canadian official in April of 2006 following presentations in Washington D.C. by the Pembina Institute and the NRDC¹⁰³

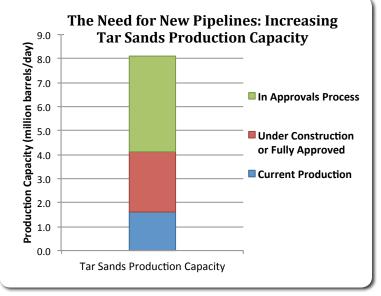
In order to expand tar sands production as the industry plans, there is a need for new pipelines to carry tar sands out of Alberta. Alberta's former Energy Minister and current Finance Minister, Ron Leipert commented that, "[I]f there was something that kept me up at night, it would be the fear that before too long we're going to be landlocked in bitumen 104."



Alberta currently has about

1.6 million barrels per day worth of output from the tar sands. There are, however, projects under construction or with all the necessary permits required to expand this to 4.1 million barrels per day, while an additional 4 million barrels per day are at various stages of the approvals process.¹⁰⁵

To accommodate this rapidly rising output, there are currently three major pipelines under discussion to ship tar sands oil east, west and south: the Enbridge Northern Gateway, Enbridge Trailbreaker, and the Keystone XL respectively.



Keystone XL Tar Sands Pipeline

Transcanada's proposed Keystone XL pipeline would transport diluted bitumen along a 2,673-kilometres route from the tar sands to Texas refineries from where it could be exported overseas. If constructed, it would have the capacity to transport 830,000 barrels of oil per day, which represents over half of all current output from the tar sands.

It was seen as crucial to enabling the expansion of the tar sands and as the battle over the Keystone XL heated up in June 2011, Alberta's then-Energy Minister Liepert warned an industry-sponsored conference that "If we don't get moving on these [pipeline] projects, our greatest risk in Alberta is that by 2020 we will be landlocked in bitumen." ¹⁰⁶

To ensure its construction, the Canadian and Albertan governments invested years in aggressive behind the scenes and public lobbying, including a half page advertisement in the Washington Post (at a cost of \$55,800 to the taxpayers) as well as billboard space in Times Square from the Premier of Alberta with a headline reading, "a good neighbour lends you a cup of sugar. A great neighbour supplies you with 1.4 million barrels of oil per day¹⁰⁷." Despite these efforts, it was the public that rose to challenge powerful industry and government's lobby.

"We don't have the money to compete with those corporations, but we do have our bodies, and beginning in mid August many of us will use them. We will, each day through Labor Day, march on the White House, risking arrest with our trespass. We will do it in dignified fashion, demonstrating that in this case we are the conservatives, and that our foes—who would change the composition of the atmosphere are dangerous radicals. Come dressed as if for a business meeting—this is, in fact, serious business. We very much still want to believe in the promise of that young Senator who told us that with his election the 'rise of the oceans would begin to slow and the planet start to heal.' We don't understand what combination of bureaucratic obstinacy and insider dealing has derailed those efforts, but we remember his request that his supporters continue on after the election to pressure the government for change. We'll do what we can."

- Call to action from leading activists from across North America¹⁰⁸

In response to the resulting pressure from an unprecedented campaign by environmentalists and affected communities, the US State Department announced in November 2011 that additional review was needed to study a re-routing around the Nebraska Sandhills.

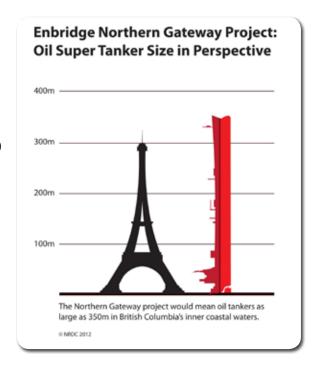
Pipeline proponents in Congress then attached a provision to a tax relief bill forcing President Obama to make a decision on the project within 60 days. In January 2012, President Obama rejected Transcanada's application for the Keystone XL tar sands pipeline as not in the national interest given insufficient time to complete the review process.

Prime Minister Harper "expressed his profound disappointment with the news" that Keystone XL was delayed. The emphasis of the Canadian government then shifted to the quest for new markets for tar sands oil.

Enbridge Northern Gateway Tar Sands Pipeline and Super Tanker Project

Enbridge's proposed Northern Gateway tar sands pipeline and tanker project has become a flashpoint in Canadian energy discussions particularly following the rejection of the Keystone XL tar sands pipeline. This proposed 1,172-kilometre pipeline and tanker project is designed to carry 525,000 barrels a day of diluted bitumen from a terminal near Edmonton and across the Rockies to Kitimat on the northern B.C. coast, where about 200 supertankers annually would dock to take on the petroleum for export to the U.S. and Asia.

The project faces massive opposition from First Nations along the route, environmental groups, and workers in the fisheries and other resource industries dependant on clean water. But the federal and Alberta governments, along with the oil industry have indicated that they are willing to turn Enbridge's proposed pipeline into "the fiercest environmental standoff ever seen in Canada" in order to break into a new market: China.



New pipelines were front-and-centre when Prime Minister Stephen Harper went to China in February 2012 and pledged to push Enbridge's Northern Gateway pipeline through as a "national priority¹¹¹."

The idea of a pipeline to access the Chinese market as a quid-pro-quo for Chinese investment in the tar sands was highlighted by Alberta's Ron Liepert when he told Bloomberg News that "If we don't soon figure out how to get the product to Asia, the investment is going to dry up. The Chinese want to see things happen. If we want to continue to be open to Asian investment, there comes a quid pro quo in their mind and that's coming up fast.... Clearly we need to diversify. If we get to where we'll be in 10 years, we're going to need several Keystones and Gateways¹¹²."

Much of this talk may well be posturing for strategic advantage. Oil industry lobbyists ¹¹³ and financiers ¹¹⁴ have suggested that highlighting the possibility of access the Chinese market can provide leverage against climate change policy measures in the United States that would affect the tar sands. In the words of one former Canadian diplomat now working as a lobbyist: "It's time for Canada to play the energy card and announce the fast-tracking of a new pipeline to the Pacific, and to encourage Asian investment in our oil patch. The Americans, especially those charged with national security, will get the message ¹¹⁵."

The reality is that the Chinese market cannot be accessed easily or quickly. There are questions as to whether China has the specialized refining capacity required to turn the bitumen into fuel¹¹⁶. And there is powerful

opposition to all pipelines to the coast from First Nations in British Columbia and their rights, as enshrined in the Canadian constitution, will almost surely result in court cases that could take many years to resolve.

Opposition to the pipeline is rooted in the impacts of spills from the pipeline or the tankers that would carry the oil. Enbridge's proposed pipeline would cross hundreds of rivers and streams and pass through the Great Bear Rainforest - a region of intact forest renowned globally for its salmon, wolves, bears and other wildlife. Spills would also pose an economic threat to the livelihoods of tens of thousands of British Columbians who earn their living from the sea.

Enbridge Trailbreaker Pipeline

One of the less known pipeline projects currently under review is a project that would reverse the flow of an existing pipeline that currently flows westwards from refineries in Montreal, Quebec to Sarnia, Ontario. The proposal is to change the direction of flow to bring tar sands oil west to east. First tabled in 2008 by Enbridge, the original project would have seen about a quarter of a million barrels of tar sands oil per day shipped from Alberta to Montreal where some of the bitumen would have been refined. The project would have also allowed for some of the bitumen to continue to Portland, Maine where it would have been shipped by tankers around the world.



Spirit Bear of the Great Bear Rain Forest along the proposed route of the Enbridge Notheren Tar Sands Pipeline. Source: Living Oceans Society

The recession forced Enbridge to temporarily shelve the project in early 2009. In 2011, Enbridge reapplied, but with an application for only a sub-section of the pipeline¹¹⁷. This approach was criticized by environmental groups as an attempt to undermine the ability of the National Energy Board to do review on what was ultimately a piece of a much larger pipeline project¹¹⁸. Different dimensions of this project have been in front of Quebec courts for almost three years and public hearings in the Ontario portion of the project will begin in September¹¹⁹.

Citizens in the United States are concerned because it is believed that Enbridge's application in Canada is an effort to revive the entire Trailbreaker project which goes through New Hampshire, Maine, and Vermont. Americans are now more concerned about tar sands pipelines because of the increased risk of spills to local communities, waterways, and important ecological areas. The high carbon emissions from tar sands are also thought to be incompatible with efforts in these states to reduce greenhouse gas emissions.



Citizens and First Nations rally on Parliament Hill in opposition of the Keystone XL Tar Sands pipeline on September 26, 2011. Source: Ben Powless



The 'Rest of Canada'

Canadians support action on climate change, and the reality is that the vast majority of Canadians live in provinces with more ambitious climate change policies than the federal government¹²⁰. In the absence of federal leadership, provinces and municipalities have forged ahead, refusing to be left behind in the global race towards a cleaner energy future.

The province of Quebec has committed to, and is on track, to meet targets similar to Kyoto and has put in place North America's first carbon tax¹²¹. British Colombia has also implemented a carbon tax as well as a relatively aggressive plan to reduce their emissions and, along with Quebec, adopted California's vehicle emission standards¹²². Ontario has just adopted the Green Energy Act, one of the most ambitious pieces of legislation on the continent to encourage clean energy development¹²³. Ontario has also committed to phasing out all coal-fired electricity plants by 2015, while other provinces such as Nova Scotia are also moving towards an end to coal. Even the province of Alberta has a modest price on carbon¹²⁴.



Quebec has been a leader in the Western Climate Initiative and will likely be followed by Ontario and Manitoba while eastern provinces are engaging in the Regional Greenhouse Gas Initiative along with New England states¹²⁵. The City of Vancouver has a plan to reduce their emissions by 80% by 2050 (based on 1990 levels)¹²⁶.

There are challenges for provinces that have decided to show leadership. Federal failure to support clean energy in Ontario while continuing to subsidize tar sands in Alberta creates difficult conditions for green energy development 127. The federal government has tied the Canadian economy to the tar sands such that that Canada is developing "Dutch disease", whereby the Canadian dollar rises with the price of oil, eliminating manufacturing jobs in Ontario and Quebec as the strong Canadian dollar makes their exports more expensive internationally and which are thus are priced out of international markets 128.

Not only do Canadians want action on climate change, but they are also increasingly understanding the unsustainable nature of the tar sands developments and realizing that the debate is bringing out the worst in the government. Recent polling has shown that Canadians feel strongly that the tar sands are having a negative impact on Canada's international reputation and that they would prioritize minimizing the environmental impact of the tar sands¹²⁹.



Conclusion

"There's a general impression that Canada is not very engaged in the world anymore... in the end, it's not your position, it's how you behave. Influence is an asset and we've run it down,"

 Retired Canadian Diplomat, Jeremy Kinsman, who served as Canada's ambassador or high commissioner to 15 countries, December 2009¹³⁰

The Canadian Government's failure to regulate the tar sands industry, combined with its diplomatic and public relations offensive to promote the tar sands defies science and the good faith efforts of other countries to tackle global warming. After more than six years of promising climate action without following through, Canada's environmental credibility is in tatters. The Canadian Government's joint efforts with the Government of Alberta to undermine and weaken climate and clean energy policy abroad must be seen as little more than an extension of industry lobbying.

The atmosphere does not adhere to political borders. Currently the tar sands are responsible for global emissions similar to those of the entire country of Switzerland, and they are projected to double over the coming eight years. The consequences of unfettered development of carbon intensive fossil fuels like tar sands would move the climate from crises to catastrophe. As countries move to invest in clean energy and take steps towards getting off of fossil fuels all together, it is clear that part of the equation to protect our shared climate must ensure pressure and accountability for others to do the same. This is especially the case for developed countries like Canada that have significant historical responsibility for the problem, and have the capacity and resources to act first and fastest in order to fix it.

It should be clear to the Canadian Government that any quick fixes to what it perceives to be the problems with the tar sands that may be achieved through public relations efforts and diplomatic pressure cannot make up for the fact that the projected plan for tar sands growth is consistent with the International Energy Agency's pathway towards 4-6 degrees Celsius of global warming.

Meanwhile, Canadian provinces, municipalities, First Nations, and citizens are working towards better outcomes for our common climate, showing that the Canadian core value of fairness is still alive and well within the country. There is therefore hope that Canada will once again be an environmental leader on the world stage.



End Notes: Tar Sands 101

- 1. Energy Resources Conservation Board, "Oilsands".
- 2. Alberta Energy, "What is Oilsands," revised June 11, 2009.
- Ibid.
- On a well-to-wheels basis compared to other conventional transportation fuels entering into the EU.Adam Brandt, "Upstream greenhouse gas (GHG)
 emissions from Canadian oil sands as a feedstock for European refineries". (Stanford University, 2011).
- 5. Alberta Energy, "Oil Sands," http://www.energy.alberta.ca/News/oilsands.asp.
- 6. Ibid.
- 7. Alberta Energy, Alberta's Leased Oilsands Area (Edmonton, AB: July 30, 2010).
- 8. Alex Charpentier, Joule Bergerson and Heather MacLean, "Understanding the Canadian oil sands industry's greenhouse gas emissions," Environmental Research Letters 4 no.1 (2009): 014005.
- 9. Environment Canada, "Canada's Emissions Trends" (2011) 25, table 5.
- 10. Clare Demerse (The Pembina Institute), Why the oilsands matter to climate policy in Canada, (2011). http://www.pembina.org/b,log/560
- 11. National Energy Technology Laboratory, Development of Baseline Data and Analysis of Life Cycle Greenhouse Gas Emissions of Petroleum-Based Fuels, DOE/NETL-2009/1346 (2008), 12, table 2-4.
- 12. Environment Canada, "Canada's Emissions Trends" (2011) 22, table 3.
- 13. Clare Demerse (The Pembina Institute), Why the oilsands matter to climate policy in Canada, (2011). http://www.pembina.org/b.log/560
- 14. Canada's emissions represent 2% of global emissions, of which 6.5% come from the tar sands = 0.125% of global emissions from the Canadian tar sands
- 15. World Resources Institute, Climate Analysis Indicators Tool: Yearly Emissions
- 16. Alberta's total greenhouse gas emissions in 2008 were 244 megatonnes of CO₂ equivalent. (Environment Canada, "National Inventory Report Part 3 1990-2008 Greenhouse Gas Sources and Sinks in Canada") Alberta's population in 2008 was estimated to be 3.51 million people. (Alberta Finance, Alberta Population Report (2008) (accessed December 22, 2010)).
- 17. World Resources Institute, Climate Analysis Indicators Tool: Yearly Emissions (accessed February 16, 2011).
- 18. The Pembina Institute, "Oilsands 101 Water" http://www.pembina.org/oil-sands/os101/water.
- 19. Alberta Environment, "Water Diversion by Oilsands Mining Projects in 2007," data received September 2008.
- 20. Mary Griffiths, Amy Taylor and Dan Woynillowicz, Troubled Waters, Troubling Trends: Technology and Policy Options to Reduce Water Use in Oil and Oilsands Development in Alberta (The Pembina Institute, 2006), 85.
- 21. Royal Society of Canada, Environmental and Health Impacts of Canada's Oil Sands Industry (2010) (accessed January 28, 2011).
- 22. Royal Society of Canada, Environmental and Health Impacts of Canada's Oil Sands Industry.
- 23. Royal Society of Canada, Environmental and Health Impacts of Canada's Oil Sands Industry.
- 24. Indigenous Environment Network, "Tar Sands and Indigenous Rights." http://www.ienearth.org/docs/IENFactsheet 2.pdf (2011)
- 25. Imperial Oil Limited, Imperial Kearl Oilsands Mine Application (no. 1408771 & 1414891, volume 4), (2005), 3-31.
- 26. Commissioner of the Environment and Sustainable Development, "2010 Fall Report of the Commissioner of the Environment and Sustainable Development" (accessed February 14, 2011).
- 27. Royal Society of Canada, Environmental and health impacts of Canada's oil sands industry, (December, 2010). http://www.rsc.ca/documents/expert/RSC%20report%20complete%20secured%209Mb.pdf
- 28. The Pembina Institute, "Pembina reacts to new joint oilsands monitoring plan." http://www.pembina.org/media-release/2308 (2012).
- 29. Indigenous Environment Network, "Tar Sands and Indigenous Rights." http://www.ienearth.org/docs/IENFactsheet 2.pdf (2011).
- 30. Nathan Vanderklippe (Globe and Mail), Total's Joslyn oil sands mine approved, (January, 2011). http://www.theglobeandmail.com/globe-investor/totals-joslyn-oil-sands-mine-approved/article1885568/
- 31. M. D. MacKinnon et al., "Water Quality Issues Associated with Composite Tailings (CT) Technology for Managing Oil Sands Tailings," International Journal of Surface Mining, Reclamation and Environment 15, no. 4 (2001).
- 32. http://www.pembina.org/oil-sands/os101/tailings
- 33. Government of Alberta. "ERCB Approves Fort Hills and Syncrude Pond Plans with Conditions," media release, April 23, 2010 (accessed December 22, 2010).
- 34. The Pembina Institute, "Oilsands 101 Tailings" http://www.pembina.org/oil-sands/os101/tailings.
- 35. M. Price, 11 Million Litres a Day: The Tar Sands' Leaking Legacy(Environmental Defence, 2008), (accessed December 10, 2008).
- 36. Royal Society of Canada, Environmental and Health Impacts of Canada's Oil Sands Industry.
- 37. Government of Alberta, "FAQ Oil Sands" (accessed December 22, 2010).
- 38. The Pembina Institute, "Oilsands 101 Reclamation" http://www.pembina.org/oil-sands/os101/reclamation_.
- 39. Royal Society of Canada, Environmental and Health Impacts of Canada's Oil Sands Industry.
- 40. Environment Canada, "Acid Rain FAQ" (accessed March 17, 2011).
- 41. Environment Canada, National Pollutant Release Inventory, 2007 Summary, section 3.1.1.1 "Criteria Air Contaminants" (accessed May 14, 2009).
- 42. J. Bergerson and D. Keith, "Life cycle assessment of oilsands technologies," Proceedings of the Alberta Energy Futures Project Workshop, 2006.
- 43. Environmental Defense, Dirty Oil, Dirty Air: Ottawa's Broken Pollution Promise (2010) (accessed January 10, 2011)

End Notes: Tar Sands 101

- 44. Michal Krzyzanowski and Aaron Cohen. "Update of WHO air quality guidelines," Air Quality, Atmosphere & Health, 1 (May 2008): 7-13.
- 45. Indigenous Environment Network, "Tar Sands and Indigenous Rights." http://www.ienearth.org/docs/IENFactsheet 2.pdf (2011).
- 46. See for example Testimony, Chief Bill Erasmus (Regional Chief, Northwest Territories, Assembly of First Nations) to Standing Committee on Environment and Sustainable Development, Tuesday, May 12, 2009.
- 47. Alberta Cancer Board, "Cancer Incidence in Fort Chipewyan," (2009).
- 48. Indigenous Environment Network, "Tar Sands and Indigenous Rights." http://www.ienearth.org/docs/IENFactsheet_2.pdf (2011).
- 49. Edmonton Journal, First Nations demand oil sands moratorium: Aboriginal leaders have declared war on the oilsands, vowing to go to court to stop what they say is the destruction of their land and the poisoning of their water, (August 2008). http://www.canada.com/topics/news/national/story.html?id=00686d4c-24d9-417d-9dd1-714592491e7f
- 50. United Nations General Assembly, Report of the Working Group on the Universal Periodic Review: Canada, (March, 2009). http://www.pch.gc.ca/pgm/pdp-hrp/inter/wrk_grp-eng.pdf
- 51. Lee Berthiaume (Postmedia News), UN slams Canada for First Nation's treatment, (February, 2012). http://www.montrealgazette.com/news/slams+Canada+First+Nations+treatment/6193201/story.html
- 52. IHS CERA, Ratcheting Down: Oil and the Global Credit Crisis (2008) http://www.ihs.com/products/cera/energy-report.aspx?ID=106591844&pu=1&rd=cera_com/
- 53. National Energy Board, 2011, Canada's Energy Future: Energy supply and demand projects to 2035, p. 19 http://www.neb.gc.ca/clf-nsi/rnrgynfmtn/nrgyrprt/nrgyftr/2011/nrgsppldmndprjctn2035-eng.pdf
- 54. IHS CERA, "Break Point Revisited: CERA's \$120-\$150 Oil Scenario," May 2008, http://www2.cera.com/news/details/1,2318,9475,00.html
- 55. Dan Healing, Update: Costs rise to \$28.5 billion for Imperial Oil's Kearl Project, 21 Dec 2011, http://www.calgaryherald.com/business/Update+Imperial+approves+expansion+Kearl+project/5892694/story.htm



- Environics, Canadians continue to voice strong support for actions to address climate change, including an international treaty and carbon taxes (December 1, 2011). https://www.environics.ca/reference-library?news.id=109
- 2. Nobel Women's Initiative, Nobel Peace Laureates call on Prime Minister Harper to stop tar sands expansion, (September 28, 2012). http://nobelwomensinitiative.org/2011/09/nobel-peace-laureates-call-on-harper-to-stop-tar-sands-expansion/
- 3. Climate Analysis Indicators Tool (CAIT UNFCCC) Version 5.0. (Washington, DC: World Resources Institute, 2012).
- 4. 13. U.S. Environmental Protection Agency (EPA), Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990 2008 (accessed December 22, 2010)
- 5. Alberta's total greenhouse gas emissions in 2008 were 244 megatonnes of CO2 equivalent. (Environment Canada, "National Inventory Report Part 3 1990-2008 Greenhouse Gas Sources and Sinks in Canada") Alberta's population in 2008 was estimated to be 3.51 million people. (Alberta Finance, Alberta Population Report (2008) (accessed December 22, 2010)).
- 6. Oilsands emissions have grown from 17 Mt in 1990 to 45 Mt in 2009. (Environment Canada, "National Inventory Report Part 1 1990-2008 Greenhouse Gas Sources and Sinks in Canada")
- 7. Environment Canada, "Canada's Emissions Trends" (2011) 25, table 5
- 8. Clare Demerse (the Pembina Institute), Why the oil sands matter to climate policy in Canada, (August 2011). http://www.pembina.org/blog/560_
- 9. Tim Weis, Pembina reacts to 2011 federal budget, (March, 2011) http://www.pembina.org/media-release/2183
- 10. Erin Loxam (1130 News), An early end to ecoEnergy grants, (January 30, 2012) http://www.news1130.com/news/local/article/325217--an-early-end-to-ecoenergy-grants
- 11. International Institute for Sustainable Development, Fossil fuels: at what cost? Government support for upstream oil activities in three Canadian provinces: Alberta, Saskatchewan and Newfoundland and Labrador (November, 2010).
- 12. Dr. Andrew Weaver, e-mail correspondence, (February 21, 2012).
- 13. Environment Canada, Canada's New Government Announces Mandatory Industrial Targets to Tackle Climate Change and Reduce Air Pollution, (April 26, 2007) http://www.ec.gc.ca/default.asp?lang=en&n=714D9AAE-1&news=4F2292E9-3EFF-48D3-A7E4-CEFA05D70C21
- 14. Clare Demerse (The Pembina Institute), Canada's Industry Regulations: Not "Turning the Corner" Anytime Soon, (March 26, 2008). http://www.pembina.org/op-ed/1617
- 15. Government of Canada, Canada's Continental Action, (accessed February 16, 2012) http://www.climatechange.gc.ca/default.asp?lang=En&n=A4F03CA6-1sector
- 16. Matthew Bramley, Pembina Institute Comments on Canada's Proposed Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations (July 2010) https://pubs.pembina.org/reports/vehicle-regs-submission-revised-july-2010.pdf
- 17. The Canadian Government uses a 2005 baseline when referencing its 2020 target, but when calculated to reflect the change in emissions from a 1990 baseline (as is the Kyoto baseline), the Canadian Government's target is 2.88% above 1990. Environment Canada, Canada's Greenhouse Gas Target and Emissions Projections (2010) http://climatechange.gc.ca/default.asp?lang=En&n=DC025A76-1
- 18. United Nations Framework Convention on Climate Change, Appendix I Quantified economy-wide emissions targets for 2020, (2010) http://unfccc.int/meetings/copenhagen_dec_2009/items/5264.php
- Matthew Bramley (The Pembina Institute), To hit climate target, Ottawa would have to work 10 times harder, (August 2011). http://www.pembina.org/blog/561
- 20. Shawn McCarthy (the Globe and Mail), Former environment minister threatened to impose new rules on oilsands, (December, 2010) http://www.theglobeandmail.com/news/politics/former-environment-minister-threatened-to-impose-new-rules-on-oil-sands/article1847647/
- Mike DeSouza (Postmedia News), Pro-oil lobby retreat urges feds to deliver climate-change solutions, (February, 2012) http://www.canada.com/business/lobby+retreat+urges+feds+deliver+climate+change+solutions/6141130/story.html
- 22. Jonathon Gatehouse (MacLeans), Suddenly the world hates Canada: How did a country with two per cent of the world's emissions turn global villain? (December 15, 2009). http://www2.macleans.ca/2009/12/15/suddenly-the-world-hates-canada/3/
- 23. G20 Leaders' statement: the Pittsburgh Summit (September 24-25, 2009)
- 24. Michael Horgan (Department of Finance), Memorandum to Minister of Finance on G20 fossil fuel subsidies commitment (March 18, 2010).
- 25. Climate Action Network Canada, Fuelling the Problem: Why it is time to end tax breaks to oil, coal and gas in Canada, (November, 2010)
- Canada's economic action plan, Eliminating fossil fuel subsidies: Budget 2011, (2011). http://actionplan.gc.ca/initiatives/eng/index.asp?mode=3&initiativelD=207
- 27. State of the Union Address (January 2011). http://www.nationaljournal.com/whitehouse/exclusive-obama-to-declare-the-rules-have-changed--20110125
- 28. Duncan Clark (The Guardian), Phasing out fossil fuel subsidies 'could provide half of global carbon target' (January 19, 2012). http://www.guardian.co.uk/environment/2012/jan/19/fossil-fuel-subsidies-carbon-target
- 29. Pallab Ghosh (BBC), Canadian government is 'muzzling its scientists', (February 17, 2012). http://www.bbc.co.uk/news/science-environment-16861468
- 30. Andrew Cuddy (Climate Action Network Canada), The Harper Government's approach to climate science research in Canada, (March 2010).
- 31. Ibid
- 32. Open letter: Prime Minister Harper please stop muzzling scientists and researchers (February, 2012) http://www.ipolitics.ca/2012/02/16/prime-minister-please-stop-muzzling-scientists-and-researchers-open-letter/
- 33. Palab Ghosh (BBC), Canadian Government is 'muzzling its scientists', (February 2012) http://www.bbc.co.uk/news/science-environment-16861468



- 34. Palab Ghosh (BBC), Canadian Government is 'muzzling its scientists', (February 2012) http://www.bbc.co.uk/news/science-environment-16861468
- 35. Andrew Cuddy (Climate Action Network Canada), The Harper Government's approach to climate science research in Canada, (March 2010) pg. 13
- 36. CBC News, Coast Guard ship used by oil companies, (November, 2010)
 - http://www.cbc.ca/news/canada/story/2010/11/23/icebreaker-coast-guard-oil-research.html
- 37. Mike DeSouza (Postmedia News), Climate skeptics gathering influence and Tory senate seats (January, 2012) http://www.montrealgazette.com/technology/Climate+skeptics+gathering+influence+Tory+Senate+seats/6032749/story.html
- Bill McKibben, Why I'm worried about my trip to Canada, (January 25, 2012). http://www.350.org/en/about/blogs/why-im-worried-about-my-trip-canada
- 39. Minister Joe Oliver, Open Letter to Canadians, (January 2012) http://www.theglobeandmail.com/news/national/an-open-letter-from-natural-resources-minister-joe-oliver/article2295599/
- 40. Official letter from the Office of the Prime Minister regarding Enbridge inquiry, (February 20, 2012). http://climateactionnetwork.ca/?p=27275
- 41. Andrew Frank, A Whistleblower's Open Letter to the Citizens of Canada: Prime Minister's Office Tries to Silence Pipeline Critics; Labels Environmental Group "Enemy of the Government of Canada" and "Enemy of the people of Canada." (January 2012) http://www.pacificfreepress.com/news/1/10785-whistleblower-charges-pmo-pressuring-environmental-ngos-on-pipeline-opposition.html
- 42. Shawn McCarthy (Globe and Mail), Security services deem environment, animal rights groups "extremist" threats, (February, 2012) http://www.theglobeandmail.com/news/politics/security-services-deem-environmental-animal-rights-groups-extremist-threats/article2340162/
- Access to Information request #A-2010-02237, Pan European Oil Sands Advocacy Strategy, (March 2011).
 http://climateactionnetwork.ca/2011/04/11/pan-european-oil-sands-advocacy-strategy-final-version-11-april-2011
- 44. APTN, Aboriginal Groups labeled "adversaries" by federal government: document (January 2012) http://aptn.ca/pages/news/2012/01/26/aboriginal-groups-labelled-adversaries-by-federal-government-document/
- 45. Joint statement issued at the conclusion of the 10th BASIC Ministerial meeting on climate change, February 13-14, 2012. http://www.sdpc.gov.cn/zjgx/W020120217568339907312.pdf
- 46. CBC News, Canada pulls out of Kyoto Protocol, (December 12, 2011) http://www.cbc.ca/news/politics/story/2011/12/12/pol-kent-kyoto-pullout.html
- 47. CTV News, Canada to pull out of Kyoto Protocol next month, (November 2011) http://www.ctv.ca/CTVNews/TopStories/20111127/durban-south-africa-slimate-conference-setup-111127/
- 49. CBC News, Canadian environment minister rebukes India remark: Indian minister gets standing ovation for Durban speech, (December 10, 2011). http://www.cbc.ca/news/world/story/2011/12/10/kent-india-climate.html
- 50. Shawn McCarthy (the Globe and Mail), African countries press developed world to reach climate deal, (December 6, 2011). http://m.theglobeandmail.com/news/politics/african-countries-press-developed-world-to-reach-climate-deal/article2259029/?service=mobile
- 51. Suzanne Goldenberg (The Guardian), Canada tries to hide Alberta tar sands carbon emissions
 Greenhouse gas emissions from the tar sands are on the rise, but try finding that in Canada's official report to the UN, (June, 2011)
 http://www.guardian.co.uk/environment/blog/2011/jun/01/canada-tar-sands-carbon-emissions
- 52. Keith Stewart (Greenpeace Canada), Canada's diplomatic spanking at UN hides deeper problems, (June 2011) http://www.greenpeace.org/canada/en/Blog/canadas-diplomatic-spanking-at-un-hides-deepe/blog/35214/
- 53. Mike DeSouza (Postmedia News), Harper government receives diplomatic spanking over climate policies, (June 11, 2011). http://hendrawanm.wordpress.com/2011/06/11/harper-government-receives-diplomatic-spanking-over-climate-policies/
- 54. Climate Action Network Canada, Canadian Government wins Fossil of the Year award in Durban (December, 2011) http://climateactionnetwork.ca/2011/12/09/canada-wins-fossil-of-the-year-award-in-durban/
- 55. CBC News, Policy lost Canada UN seat: ex-Ambassador, (October, 2010) http://www.cbc.ca/news/canada/story/2010/10/13/policy-cost-canada-103.html
- 56. Jonathon Gatehouse (MacLeans), Suddenly the world hates Canada: How did a country with two per cent of the world's emissions turn global villain? (December 15, 2009). http://www2.macleans.ca/2009/12/15/suddenly-the-world-hates-canada/
- 57. Fundraising letter sent by Stephen Harper to supporters in 2002. http://one-blue-marble.com/harper-and-climate-change.html
- 58. Climate Action Network Canada, The tar sands long shadow: The Canadian Government's campaign to kill climate policies outside our borders, (November 2010) http://climateactionnetwork.ca/2010/11/30/the-tar-sands-long-shadow/?rel=691
- 59. Paul Wells (MaCleans), Why Prentice took on the oil sands: Jim Prentice preaches responsibility regarding the oil sands, (February, 2010) http://www2.macleans.ca/2010/02/05/why-prentice-took-on-the-oil-sands/
- 60. Climate Action Network Canada, The tar sands long shadow: The Canadian Government's campaign to kill climate policies outside our borders, (November 2010). http://climateactionnetwork.ca/2010/11/30/the-tar-sands-long-shadow/?rel=691
- 61. Sheldon Alberts (Postmedia News), Environment minister Kent says U.S. still bullish on Keysont XL pipeline, (February 17, 2012). http://www.canada.com/news/Environment+minister+Kent+says+still+bullish+Keystone+pipeline/6167450/story.html#ixzz1mfgvcm9k
- 62. Access to Information request # A-2010-02237, Pan-European oil sands team mid year report, (August 10, 2010). http://climateactionnetwork.ca/2010/08/20/pan-european-oil-sands-team-mid-year-report-20-august-2010



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- 63. Access to Information request # A-2010-02237, Pan-European oil sands team mid year report, (March 2010). http://climateactionnetwork.ca/2010/08/20/pan-european-oil-sands-team-mid-year-report-20-august-2010
- 64. Andy Rowell, Paul de Clerck and Darek Urbaniak (Friends of the Earth Europe), Canada's dirty lobby diary: Undermining the EU Fuel Quality Directive, (July 2011). http://www.foeeurope.org/publications/2011/FOEE_Report_Tar_Sands_Lobby_Final_July82011.pdf
- 65. European Commission, Transport & Environment: fuel quality monitoring, (accessed February 19, 2012). http://ec.europa.eu/environment/air/transport/fuel.htm
- 66. Access to Information request # A-2010-02237, Pan-European oil sands advocacy strategy, (March 2011). http://climateactionnetwork.ca/2011/04/11/pan-european-oil-sands-advocacy-strategy-final-version-11-april-2011
- 67. Access to Information request # A-2010-02237, Pan-European oil sands advocacy strategy, (March 2011). http://climateactionnetwork.ca/2011/04/11/pan-european-oil-sands-advocacy-strategy-final-version-11-april-2011
- 68. Access to Information request # DC7040-11-147, Report: Pan European Oil sands Team Meeting, (February 1,2, 2011). http://climateactionnetwork.ca/?p=27263
- 69. Access to Information request # A-2010-02237, Department of Foreign Affairs and International Trade Canada, Memorandum for information to the Ministers' of International Trade and Foreign Affairs, Oil Sands Engagement in Europe, (March 3, 2010). http://climateactionnetwork.ca/2010/03/05/oil-sands-outreach-in-europe-5-march-2010
- 70. Mike DeSouza (Postmedia News), Feds spent nearly \$54,000 on pro-oil lobbying retreat over two days in London, England, (February, 2012). http://blogs.canada.com/2012/02/15/feds-spent-nearly-54000-on-pro-oil-lobbying-retreat-over-two-days-in-london-england/
- 71. Access to Information request # A-2010-02237, Pan-European oil sands team action plan, (May 2010). http://climateactionnetwork.ca/2010/05/18/2010-05-18-pan-european-oil-sands-team-action-plan
- 72. Ibid.
- 73. Access to Information request # DC7040-11-147, Report: Pan European Oil sands Team Meeting, (February 1,2, 2011). http://climateactionnetwork.ca/?p=27263
- 74. Access to Information request # A-2010-02237, Pan-European oil sands team mid year report, (August 10, 2010). http://climateactionnetwork.ca/2010/08/20/pan-european-oil-sands-team-mid-year-report-20-august-2010
- 75. Access to Information request # DC7040-11-147, Report: Pan European Oil sands Team Meeting, (February 1,2, 2011). http://climateactionnetwork.ca/?p=27263
- 76. Ibid.
- 77. Ibid.
- 78. CBC News, European MP defends EU oil sands policy, (November 23, 2011). http://www.cbc.ca/news/politics/story/2011/11/23/pol-eu-mp-arsenis-oil-sands.html
- 79. Access to Information request # A-2010-02237, Pan-European oil sands advocacy strategy, (March 2011). http://climateactionnetwork.ca/2011/04/11/pan-european-oil-sands-advocacy-strategy-final-version-11-april-2011
- 80. Charlie Dunmore and Barbara Lewis (Reuters), EU oil sands ranking a trade threat: Alberta, (October 2011). http://m.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/eu-oil-sands-ranking-a-trade-threat-alberta/article2208817/?service=mobile
- 81. Pete Harrison (Reuters), EU yields to Canada over oil trade "barriers": sources, (March 24, 2010). http://www.reuters.com/article/2010/03/24/us-eu-energy-canada-idUSTRE62N3T920100324
- 82. Daniel Carrington (the Guardian), Canada threatens trade war with EU over tar sands

 The row over the EU's plan to label tar sands oil as highly polluting escalates as Canada says it 'will not hesitate to defend its interests', (February 20, 2012). http://www.guardian.co.uk/environment/2012/feb/20/canada-eu-tar-sands?intcmp=122
- 83. Commissioner Hedegaard meeting with Europia's President Dr. Josef Waltl and Secretary General Ms. Isabelle Muller, Bilateral with Europia on the Fuel Quality Directive and EU-ETS, (June 22, 2010). https://climateactionnetwork.ca/?p=27268
- 84. Climate Action Network Canada, The tar sands long shadow: The Canadian Government's campaign to kill climate policies outside our borders, (November 2010)
- 85. DG Environment, European Commission, "Agenda Item No. 9: Consultation Results on Article 7a Implementation Measures," Slide 4.
- 86. Jason Fekete and Lisa Schmidt (Calgary Herald), Alberta claims victory in EU's 'backing off' from oilsands rules, (March 25, 2010)
- 87. Access to Information request # A-2010-02237, Department of Foreign Affairs and International Trade Canada, Memorandum for information to the Ministers' of International Trade and Foreign Affairs, Oil Sands Engagement in Europe, (March 3, 2010)._
 http://climateactionnetwork.ca/2010/03/05/oil-sands-outreach-in-europe-5-march-2010
- 88. European Commission comitology register, laying down calculation methods and reporting requirements pursuant to Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels, (February 23, 2012). https://ec.europa.eu/transparency/regcomitology/index.cfm?do=search.documentdetail&XOvfOQKYHt67nl0gDR9EQ0pDU4MfDGIJHglKuEmrBsRhxbx1TISJ2Mfg5DtxY23N
- 89. Access to Information request # A-2010-02237, Media Lines: Oil Sands, (June 2010). http://climateactionnetwork.ca/2010/06/24/oil-sands-media-lines-24-june-2010
- 90. Access to Information request # A-2010-02237, Pan-European oil sands team mid year report, (August 10, 2010). http://climateactionnetwork.ca/2010/08/20/pan-european-oil-sands-team-mid-year-report-20-august-2010



- 91. Access to Information request # A-2010-02237, Oil sands advocacy in the United States: an overview, (March 28, 2011). http://climateactionnetwork.ca/2011/03/28/oil-sands-advocacy-in-the-united-states-28-march-2011
- 92. Ibid.
- Access to Information request # A-2010-02237, Energy and oil sands advocacy: update, (May, 2009). http://climateactionnetwork.ca/2009/05/21/united-states-oil-sands-advocacy-may-21-2009
- 94. Access to Information request, Defining DFAIT's role in U.S. Oil Sands Outreach, (November 10, 2010). http://climateactionnetwork.ca/2010/11/10/dfaits-role-in-us-oil-sands-outreach-november-10-2010/?rel=8212
- 95. Alberta Cancer Board, Cancer Incidence in Fort Chipewyan, (2009).
- 96. Climate Action Network Canada, The tar sands long shadow: The Canadian Government's campaign to kill climate policies outside our borders, (November 2010) Pq. 17
- 97. Access to Information request # A-2010-02237, Pan European Oil Sands Team Action Plan, (May 18, 2010). http://climateactionnetwork.ca/2010/05/18/2010-05-18-pan-european-oil-sands-team-action-plan
- 98. Access to Information Request, Email between Canadian officials and Canadian High Commission in Washington D.C re. re. messaging and themes, (July 23, 2010). http://climateactionnetwork.ca/2012/03/01/e-mails-from-w...y-july-23-2010/
- 99. Shawn McCarthy (Globe and Mail), Keystone pipeline approval 'complete no-brainer,' Harper says, (September 21, 2011). http://www.theglobeandmail.com/news/politics/keystone-pipeline-approval-complete-no-brainer-harper-says/article2174907/
 United States State Department, Keystone XL pipeline project review process: decision to seek additional information, (November 10, 2011). http://www.state.gov/r/pa/prs/ps/2011/11/176964.htm
- 100. United States State Department, Denial of the Keystone XL pipeline application, (January 18, 2012). http://www.state.gov/r/pa/prs/ps/2012/01/181473.htm
- 101. Treasury Board Secretary, Clean Energy Dialogue, Program's Expected Achievements 2010-2011 http://www.tsb-sct.gc.ca/pp/2010-2011/inst/doc/st-ts04-eng.asp
- 102. Access to Information request # A-2010-02237, Oil sands advocacy in the United States: an overview, (March 28, 2011). http://climateactionnetwork.ca/2011/03/28/oil-sands-advocacy-in-the-united-states-28-march-2011
- 103. Access to Information Request #DC7040-10-294, E-mail from Paul Connors: Pembina Institute and NRDC Presentation on Oil Sands in DC, (July, 2006). http://climateactionnetwork.ca/?p=27271
- 104. Nathan Vanderklippe and Shawn McCarthy (Globe and Mail), Without Keystone XL oil sands face choke point, (June 8, 2011). https://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/without-keystone-xl-oil-sands-face-choke-point/article2052562/
- 105. Strategy West Inc., Existing and Proposed Canadian Commercial Oil Sands Projects, (April 2011).
- 106. Marshall, Christa. "Debate Intensifies Over Climate Change Aspects of Canada's Oil Sands Pipeline".
 New York Times Energy and Environment Blog. 25July 25 2011.
 ">http://www.nytimes.com/cwire/2011/07/25/25climatewire-debate-intensifies-over-climate-change-aspec-46622.html?pagewanted=all>
- 107. Josh Wingrove (Globe and Mail), Stemach buys U.S. ad touting oil sands, (June, 2010). http://www.theglobeandmail.com/news/politics/stelmach-buys-us-ad-touting-oil-sands/article1627312/
- 108. Maude Barlow, Wendell Berry, Tom Goldtooth, Danny Glover, James Hansen, Wes Jackson, Naomi Klein, Bill McKibben, George Poitras, David Suzuki and Gus Speth, Open letter calling for non violent civil dissobedeance in protest of the Keystone XL pipeline, (June, 2010). http://www.thenation.com/blog/161604/bill-mckibben-naomi-klein-call-civil-disobedience-tar-sands
- 109. McCarthy, Shawn and Nathan Vanderklippe. "To Harper's 'profound disappointment', Obama rejects Keystone". Globe and Mail. 18 January 2012.
- 110. Whittington, Les. "Titanic clash looms over proposed Northern Gateway pipeline" Toronto Star. 8 January 2012.
- 111. Ljunggren, David. "Harper vows to ensure Enbridge's Northern Gateway pipeline is built". Vancouver Sun. February 10, 2012. http://www.vancouversun.com/news/Canada+vows+ensure+pipeline+built/6134365/story.html#ixzz1mSxQhOej
- 112. Van Loon, Jeremy. "Canada's Oil-Sand Fields Need U.S. Workers, Alberta Minister Says". Bloomberg News. 7 September 2011. http://www.bloomberg.com/news/2011-09-07/canada-s-oil-sand-fields-need-u-s-workers-alberta-minister-says.html
- 113. See pages 8 and 14 of Pierre Alvarez, Michael Cleland and Roger Gibbins. "National Energy Security from an Exporter's Perspective: The Canadian Experience". Paper prepared for North Pacific Energy Security Conference, December 15-16, 2008. http://www.centreforenergy.com/Documents/Feb2009-NationalEnergySecurity-FINAL.pdf
- 114. See quotes from BMO's chief economist Sherry Cooper cited on page 2 of Nathan Lemphers. Pipeline to Nowhere? Uncertainty and unanswered questions about the Enbridge Norher Gateway Pipeline. The Pembina Institute. December 2010.
- 115. Colin Robertson. "Let's act like an energy superpower". The Globe and Mail. 27 July, 2010.
- 116. Nathan Lemphers. Pipeline to Nowhere? Uncertainty and unanswered questions about the Enbridge Norher Gateway Pipeline. The Pembina Institute. December 2010, pp. 8 11.
- 117. http://energypipelinenews.blogspot.com/2009/01/enbridge-puts-trailbreaker-pipeline 20.html
- 118. Reuters, Green groups seek wider review of Enbridge project, (August 26, 2011). http://www.reuters.com/article/2011/08/26/us-enbridge-line-idUSTRE77P0Q820110826



- 119. http://www.radio-canada.ca/regions/Montreal/2011/10/28/008-montreal-pipe-lines-dunham-station-pompage.shtml
- 120. Environics Research Group, Canadians continue to voice strong support for actions to address climate change, including an international treaty and carbon taxes, (December 1, 2011). https://www.environics.ca/reference-library?news_id=109
- 121. Kazi Stastna (CBC News), Kyoto exit leaves climate fight up to provinces: Here's what regions are doing to reduce greenhouse gas emissions, (December 29, 2011). http://www.cbc.ca/m/touch/politics/story/2011/12/16/f-climate-provinces.html
- 122. Ibid.
- 123. Ibid.
- 124. Ibid.
- 125. Ibid.
- 126. City of Vancouver, Sustainability: climate protection, (accessed February 19, 2012). http://vancouver.ca/sustainability/climate_protection.htm
- 127. Commission on the Reform of Ontario's Public Services, Chapter 20: Intergovernmental relations, (accessed February 19, 2012). http://www.fin.gov.on.ca/en/reformcommission/chapters/ch20.html
- 128. Philippe Bergevin (Economics Division, Library of Parliament), Energy resources: boon or curse for the Canadian economy? (March 31, 2006). http://www.parl.gc.ca/Content/LOP/researchpublications/prb0586-e.htm
- 129. Nanos Poll, Environment trumps prosperity for oil sands development, (2010). http://www.nikonthenumbers.com/topics/show/125
- 130. Jonathon Gatehouse (MacLeans), Suddenly the world hates Canada: How did a country with two per cent of the world's emissions turn global villain? (December 15, 2009). http://www2.macleans.ca/2009/12/15/suddenly-the-world-hates-canada/3/

End Notes: "Lobbying Assertions" (pg 15)

- 1. Adam Brandt (Stanford University), Upstream greenhouse gas (GHG) emissions from Canadian oil sands as a feedstock for European refineries, (2011).
- 2. National Energy Technology Laboratory, Development of Baseline Data and Analysis of Life Cycle Greenhouse Gas Emissions of Petroleum-Based Fuels, DOE/NETL-2009/1346 (2008), 12, table 2-4.
- 3. Environment Canada, "Canada's Emissions Trends" (2011). This document indicates the overall expected emission increase for Canada as 54 Mt CO2e (table 2, page 22) between 2005 and 2020 while projecting tar sands related emissions to rise by 62 Mt CO₂e during the same period (table 5, page 25). Tar sands related emissions thus represent 115% of Canadian emissions growth. In other words any emission reductions achieved elsewhere in Canada are more than cancelled out by the growth in tar sands emissions.
- Oilsands emissions were 45 Mt in 2009. (Environment Canada, "National Inventory Report Part 1 1990-2008 Greenhouse Gas Sources and Sinks in Canada", 86.), Switzerland's emissions were 44 Mt Mt in 2009 (Climate Analysis Indicators Tool (CAIT UNFCCC) Version 5.0. (Washington, DC: World Resources Institute, 2012).
- 5. Alex Charpentier, Joule Bergerson and Heather MacLean, "Understanding the Canadian oil sands industry's greenhouse gas emissions."
- 6. Alberta Energy, Alberta's Leased Oilsands Area (Edmonton, AB: July 30, 2010). Total Area (140,000 square kilometres) Minable Area (4,750 square kilometres) = In Situ Area (135,250 square kilometres)
- 7. Alex Charpentier, Joule Bergerson and Heather MacLean, "Understanding the Canadian oil sands industry's greenhouse gas emissions."
- 8. Indigenous Environment Network, "Tar Sands and Indigenous Rights." http://www.ienearth.org/docs/IENFactsheet 2.pdf (2011).
- Pembina Institute. Haste Makes Waste: http://www.pembina.org/pub/1409 and, IHS CERA, 2012. Assessing Environmental Regulation in the Canadian Oil Sands. SPECIAL REPORT
- Transport and Environment, Reducing transportation emissions implementing the Fuel Quality Directive, (accessed February 22, 2012) http://www.transportenvironment.org/publications/reducing-transport-fuel-emissions-implementing-fqd
- 11. Matthew Bramley (The Pembina Institute), To hit climate target, Ottawa would have to work 10 times harder, (August 2011). http://www.pembina.org/blog/561
- 12. Ibid.
- 13. Matthew Bramley, Marc Huot, Simon Dyer and Matt Horne. 2011. Responsible Action? Anassessment of Alberta's greenhouse gas policies. The Pembina Institute. Calgary AB.
- 14. Matthew Bramley, Marc Huot, Simon Dyer and Matt Horne. 2011. Responsible Action? Anassessment of Alberta's greenhouse gas policies. The Pembina Institute. Calgary AB.
- 15. European Commission comitology register, laying down calculation methods and reporting requirements pursuant to Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels, (February 23, 2012). http://ec.europa.eu/transparency/regcomitology/index.cfm?do=search.documentdetail&XOvfOQKYHt67nl0gDR9EQ0pDU4MfDGIJHglKuEmrBsRhxbx1TISJ2Mfg5DtxY23N



