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**CRITICAL ENVIRONMENTAL  
SECURITY: RETHINKING THE LINKS  
BETWEEN NATURAL RESOURCES  
AND POLITICAL VIOLENCE**

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# CHAPTER 9

## DIRTY SECURITY?

### TAR SANDS, ENERGY SECURITY AND ENVIRONMENTAL VIOLENCE

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#### **Introduction**

Unconventional oil is frequently presented as the future of petroleum-based energy resources.<sup>1</sup> Critics, in contrast, denounce unconventional oil as a major factor of environmental insecurity for local ecosystems, communities, and the planet. In particular, they claim that ‘unconventional’ hydrocarbon sources are frequently associated with deregulation of oil extraction and petroleum commodity chains, have negative environmental impacts and increase the number and intensity of energy and environment-related conflicts.

We examine this debate about energy and environmental security through a case study of the tar sands in Alberta, western Canada, which have been dubbed the world’s second largest petroleum reserves after Saudi Arabia, and were by 2010 the largest single source of imported oil to the United States.<sup>2</sup> We start with a brief review of the energy and environmental security conundrum, and present two divergent views of environmental violence: violence *to* the environment; and violence *for* environmental causes. We then discuss the liberalization and securitization strategies first pursued by Canadian authorities to overcome impediments to growth in the tar sands sector during the 1990s. The massive growth in tar sands exploitation which has occurred since the early 2000s has led to growing opposition, characterized by three trends: a scaling-up in alliances and actions; a move away from stalled institutionalized politics to more direct and disruptive interventions; and a growing consensus on the need for a policy adjustment that would see further developments stopped or slowed until effective environmental regulations are in place.

As opposition to tar sands exploitation has grown, Canadian authorities have responded with two strategies: a criminalization of dissent against the tar sands; and a process of ecological modernization. Criminalization frames dissent (particularly on the part of environmental and aboriginal groups) as socially deviant and harmful, extending anti-terrorism legislation and rhetoric into the realm of civil disobedience. Environmental modernization promises to deliver both environment and energy security through applying carbon sequestration technology to the tar sands, a process that people concerned about the environment and aboriginal people’s rights generally see as a public

relations exercise and major subsidy for the oil industry. From this perspective, the tar sands provide ‘dirty security,’ likely to result in more violence *to* the environment and in violence *for* the environment, particularly as protesters seek legitimation through environmental causes.

## **Energy and Environmental Security**

There is a marked tension between the demand for energy security – the need to sustain a supply of hydrocarbons to North American markets – and for environmental security, which has been threatened by the multiple and far-ranging environmental impacts of tar sands developments. This tension is evident, for example, in the international debate over the tar sands. Both Canadian Prime Minister Stephen Harper and US President Barack Obama have boasted of vast hydrocarbon reserves, coal and bitumen respectively, which could help secure energy supply for North America. Yet these projects are called into question in international debates on climate change. And both leaders have acknowledged the need to reduce their carbon footprint to ensure environmental security and are pressured to implement low-carbon legislation. As a result, reducing carbon emissions has become one of the key challenges to sustained growth in the tar sands.

This tension between energy security and environmental security has also been expressed through two forms of environmental violence. The first frames environmental violence as violence perpetrated *on* the environment, and indirectly as violence perpetrated on human health and well-being through polluted environments. Security is thus a matter of environmental regulation, of preventing environmental degradation through standards, regulations, monitoring, enforcement and so forth. The second perspective frames environmental violence as violence perpetrated *for* environmental motives, with ‘eco-terrorism’ a catchword frequently used by the media. Security, from this perspective, is thus a matter of political inclusion and policing to prevent ‘radical environmental activism.’ These two narratives are closely connected, as it is often the first type of environmental violence that motivates the second.

Both narratives have been featured in the tar sands debate. The first narrative describes the violence perpetrated on ecosystems, landscapes and communities by tar sands exploitation. The environmental damage incurred by tar sands developments is most obvious in the strip-mining of over 600 square kilometres and the creation of massive toxic tailing ponds spanning over 50 square kilometres (as of 2009) of a previously undeveloped boreal forest ecosystem. This environmental violence has been vividly portrayed in advocacy campaigns against the tar sands, in magazines like *National Geographic*, and in documentaries such as *Petropolies*.<sup>3</sup> The developments also result in more insidious and extensive types of pollution, including chemical leaching from the tailings ponds into groundwater and major river systems, ‘acid rain’ from the discharge of air pollutants, and greenhouse gas emissions, all of which in turn affect ecosystems. The scale of this pollution ranges from local communities to a global impact. It includes water pollutants transported down the Athabasca River, into the fragile inland Peace-Athabasca Delta and through the Mackenzie Basin to the Arctic Ocean,<sup>4</sup> airborne pollutants increasing soil and lake acidification risk eastward in neighbouring Saskatchewan and Manitoba,<sup>5</sup> and greenhouse gas emissions contributing to global climate change (and preventing Canada from reaching emissions reduction commitments).<sup>6</sup> It is especially at those

levels that anthropogenic pollution from the tar sands exacts environmental violence upon human health and well-being.<sup>7</sup>

The second narrative focuses on the interplay of resistance and repression associated with the struggle to ‘shut down’ the tar sands. While the term ‘eco-terrorism’ is occasionally employed in the media, action taken by environmental advocates to date is primarily symbolic, such as placing hazard signs on pipes transporting waste to tailings ponds or occupying sites to prevent work. So far there has been more concern for the personal safety of demonstrators than for the target audiences as activists undertake ‘spectacular’ actions to stop tar sands projects or raise public awareness. This ‘non-violent’ approach contrasts with the rhetorical physical violence apparently wished upon activists by some anonymous commentators.<sup>8</sup> There is furthermore a possibility of physical forms of violence escalating, as suggested by the firebombing of a Royal Bank of Canada (RBC) branch in Ottawa on 18 May 2010.<sup>9</sup> RBC had been the chief ‘financial’ target of tar sands activists in recent years, several groups having staged demonstrations, which included scaling RBC flagpoles, hanging banners from RBC flagpoles and buildings, as well as distributing leaflets enjoining RBC clients to quit the bank – Canada’s largest financial institution and company by market capitalization.<sup>10</sup>

### **Promoting the Tar Sands**

Canada is the world’s only growing producer of energy, this strategic commodity, with a secure, stable government.<sup>11</sup>

Although the Albertan and Canadian governments have actively promoted tar sands exploitation for decades, major exploitation activity only began in the 1990s. Prior to that, low oil prices, the perceived difficulty of extracting the low-grade oil from the tar sands (a process which is both energy and water-intensive), and the availability of conventional oil in Alberta were disincentives for major activity. As explored below, political commitment to an integrated energy supply within North America was a key factor in the expansion of production. To stimulate tar sands development, Canadian authorities adopted the strategies of liberalization and securitization.

The first strategy – liberalization – promoted largely by provincial governments (which have constitutional responsibility for energy resources development under Canada’s decentralized federal system), is one of ‘ultra-liberalization’ whereby the resource was basically given out ‘for free’ in the 1990s. This move was in part motivated by the price crisis faced by many primary commodity producers during the mid- to late 1990s, with oil reaching a bottom price of about US\$9 in 1998.<sup>12</sup> Both provincial and federal governments provide extensive financial subsidies to the industry through research and development funding as well as low taxation and royalty regimes.<sup>13</sup> Investment incentives, however, remained largely countered by low oil prices until the early 2000s. Following a meeting with US Vice-President Dick Cheney, Alberta Premier Ralph Klein summed up his perspective by arguing that his province “has so much energy to burn, so to speak, and we’re willing to share.”<sup>14</sup> This assistance is paired with a very welcoming fiscal environment for tar sands developers thanks to low royalty regimes and generous tax incentives like the Accelerated Capital Cost Allowance.<sup>15</sup>

The second strategy of Canadian authorities – securitization – has been to represent these as the major source of energy security for the United States in the wake of 9/11 and the 2001 Cheney National Energy Policy report which stated that “continued development of [Canada’s heavy oil sands reserves] can be a pillar of sustained North American energy and economic security.”<sup>16</sup> This association of investment incentives with US energy security has Cold War era precedents, when the United States was eager to secure access to oil from Alberta.<sup>17</sup> The promotion of investments into the tar sands by Canadian provincial and federal authorities took the form of high-profile business visits, lobbying and advertisement campaigns. This energy security discourse found an echo in US interest groups such as the American Petroleum Institute – the main US oil and gas industry association – which run a campaign with the motto “[US] energy security? The answer might be closer than you think.”<sup>18</sup>

While the federal and provincial governments continue encouraging the tar sands industry through a variety of financial and lobbying methods, non-governmental groups and communities have become aware of the environmental impacts of tar sands developments and are opposing these projects. What is the state of opposition to the tar sands? Why is this opposition seeking to regain agency outside the narrow confines of institutionalized politics? What agendas and methods are now pursued? We elaborate on these points below and then, in the following sections, discuss how government officials have responded to this opposition.

## **Opposing the Tar Sands**

It’s time to stop the tar sands.<sup>19</sup>

Over the past decade, resistance to status quo environmental regulation in the tar sands has grown. Three trends are notable in this opposition and are elaborated below: a shift in scale from local to international levels of action; a shift in strategy from ‘inside’ and ‘normal’ politics to more disruptive challenges to political institutions; and the development of a consensus on alternatives or policy changes required.

### *Re-scaling Opposition*

There has been a strategic shifting of the scales at which organizing and action occur, from local to international levels. Within Alberta, Aboriginal communities downstream of tar sands developments or in the path of pipelines to carry gas to the projects or to transport bitumen from them have been longstanding sources of resistance. Communities such as Fort Chipewyan have protested the projects’ environmental health impacts, their degradation of water, air and subsistence foods, as well as how the projects limit aboriginal peoples’ access to traditional lands. This opposition has been joined by resistance from provincial environmental non-government organizations (ENGOS) such as the Sierra Club of Canada Prairie Chapter, Prairie Acid Rain Coalition, Alberta’s Canadian Parks and Wilderness Society, and the Keepers of the Athabasca. These groups conduct or commission research on the environmental impacts of the tar sands, publicize this research through media to the public, intervene in government hearings and consultations, raise awareness through media and

public education events, poll public opinion to understand the interests and concerns of Albertans and other Canadians, and lobby politicians and policy-makers to redress environmental policy. Simultaneously, these ENGOs and communities are supported by research from policy institutes, most notably from the provincial offices of the Pembina Institute with its “Oil Sands Watch” research program, and the Parkland Institute at the University of Alberta which analyses energy security and revenue issues.

In addition, the provincial opposition to the tar sands includes organizations not primarily focused on environmental issues, such as Public Interest Alberta (focusing on protecting and building public services), and labour organizations like the Alberta Federation of Labour (working on re-orienting Alberta’s economy to ‘green’ development), the Communications, Energy and Paperworkers Union (lobbying to slow pipeline projects exporting raw bitumen and, therefore, jobs), and other institutions such as the Regional Municipality of Wood Buffalo and Northern Lights Health Region which object to the stress the developments place on the region’s infrastructure.

As described by George Hoberg and Jeffrey Phillips, however, these provincial groups have been met by an unresponsive provincial government.<sup>20</sup> Therefore, they have shifted to lobbying simultaneously at the national level working in coalition with ENGOs such as Toronto’s Environmental Defence,<sup>21</sup> and other NGOs such as the Polaris Institute and the Council of Canadians. Religious organizations are also involved, spearheaded by KAIROS’ Ecumenical Justice Initiative while national (and international) aboriginal organizations join provincial groups, for example, the Indigenous Environmental Network’s Canadian Indigenous Tar Sands Campaign.

Resistance is also growing in Canadian sites outside of Alberta that are either affected by pipelines fuelling the tar sands projects or transporting the product, or are experiencing the more far-reaching environment impacts of the developments. For example, in British Columbia there is strong opposition to pipelines and tanker traffic transporting bitumen (note the “Tar Sands Free BC” campaign), and in the Northwest Territories, tension is building locally due to concerns about water pollution and quantity flowing north from Alberta.

Meeting federal reluctance to slow or suspend tar sands developments, groups now work with American organizations such as ForestEthics and the movement continues to expand to Europe. Highly inclusive coalitions spanning environmental, social, labour, religious and aboriginal organizations now extend from local and provincial organizers to national and international levels. Opposition in the United States focuses on key political meetings and corporations. For example, Oil Change International and the Natural Resource Defence Council protested Alberta Premier Ed Stelmach’s attempts to defend and promote the tar sands during his January 2008 visit to Washington. ForestEthics joined with Toronto’s Environmental Defence to protest the Albertan trade mission in the US capital in April 2008 to lobby for an exclusion of the tar sands from new American *Energy Independence and Security Act (EISA)*. Then February 2009 saw the joint launch of the obama2canada.org campaign by Canadian, American and international NGOs prior to President Obama’s first visit to Canada in February 2009 when Prime Minister Harper was defending the projects and seeking to protect them against continental carbon emissions regulations. The campaign featured high-profile advertisements in major US newspapers, such as the 25 February 2009, message to Obama in *USA Today* by Mikisew Cree, Athabasca Chipewyan First Nations and ForestEthics stating, “[y]ou’ll never guess who’s standing between us and our new energy

economy.” The text was followed by an oil-splattered map of Canada, oozing south across the US border.

European groups are also increasingly active in opposing tar sands projects. Europe is not an export market for the tar sands but the region is a major source of investment for them, hence the building activism particularly in Norway and the UK to end investments in the projects. For example, in fall 2008, the UK Social Investment Forum emphasized the environmental and long-term financial risks of Royal Dutch Shell and BP’s operations in the tar sands.<sup>22</sup> UK’s Co-Operative Asset Management ethical investment fund lobbied the companies to withdraw from tar sands projects. Then in spring 2009, Norwegian and Swedish banks, insurance companies and investment funds followed this lead to pressure Statoil, the Norwegian predominantly nationally-owned oil company, to withdraw investments in tar sands projects. Likewise, in May 2009, the Lubicon Cree lobbied the Norwegian Government Pension Fund, Global (Oljefondet), to divest itself of investments in TransCanada.<sup>23</sup>

### *Regaining Agency*

Throughout this shift in scale from local to these international sites there is a second trend occurring in opposition to the tar sands, a strategic transition from working ‘inside’ standard, institutionalized political processes directing tar sands developments to moving ‘outside’ to challenge specific companies, investors and end users directly.

Many of the organizers resisting the tar sands began by working with government and industry at the provincial and national level to manage tar sands projects via government/industry/community advisory organizations such as the Cumulative Environmental Management Association (CEMA) or through collaborative efforts such as the 2005 declaration on environmental standards and conditions for tar sands development.<sup>24</sup> Yet as communities and organizations grow increasingly disappointed at the outcome of these processes – recommendations to manage the industry have gone unheeded while environmental impacts have become more apparent and more severe<sup>25</sup> – they have begun to withdraw. A key example of this was the 2007 withdrawal from the CEMA of the Athabasca Chipewyan First Nation and the Mikisew Cree First Nation in protest against the committee’s lack of progress. The Pembina Institute, the Toxics Watch Society of Alberta and the Fort McMurray Environmental Association followed this lead and withdrew in 2008.

Instead of participating in the regulatory process, some communities have opened court cases against the provincial or federal governments for failure to consult and for infringements on traditional lands or treaty rights. Examples include the Chipewyan Prairie Dene First Nation’s March 2008 case against the Alberta government in relation to the Christina Lake steam-assisted gravity drainage (SAGD) project, the Athabasca Chipewyan First Nation’s 2008 court challenge of 2006 and 2007 land tenure permits to Shell and other companies, and the Beaver Lake Cree Nation’s 2009 case against the provincial and federal governments. Simultaneously aboriginal communities have vigorously protested pipeline projects running to and from the tar sands. For example, since 2007, Lubicon Lake Indian Nation, now in collaboration with local groups and Amnesty International, have opposed the installation of TransCanada Pipeline Limited’s North Central Corridor project through their non-ceded territory.<sup>26</sup> Joint court cases are also becoming a more frequent tool of Albertan ENGOS.

Outside the courts, groups like Greenpeace have made headlines by using direct action strategies such as unfurling a banner at one of the premier's fundraising dinners in April 2008 which read, "\$telmach: the best premier oil money can buy," creating a mock tourism website of tar sands in June 2008 to satirize the province's new tourism campaign and underscore the environmental horrors of the tar sands, and erecting a sign at the mouth of one of Syncrude's tailings waste pipes in July 2008 declaring the operations to be the "world's dirtiest oil." Groups in the United States have also moved from targeting political leaders to lobbying individual companies and banks, as seen in the Natural Resources Defense Council's (NRDC) campaign to pressure major airlines to stop using fuel from tar sands and the Rainforest Action Network and Lubicon Lake Indian Nation's message to the Royal Bank of Canada to withdraw investment from the projects.<sup>27</sup>

*Setting a 'Post-oil' Agenda: Building Issue Salience*

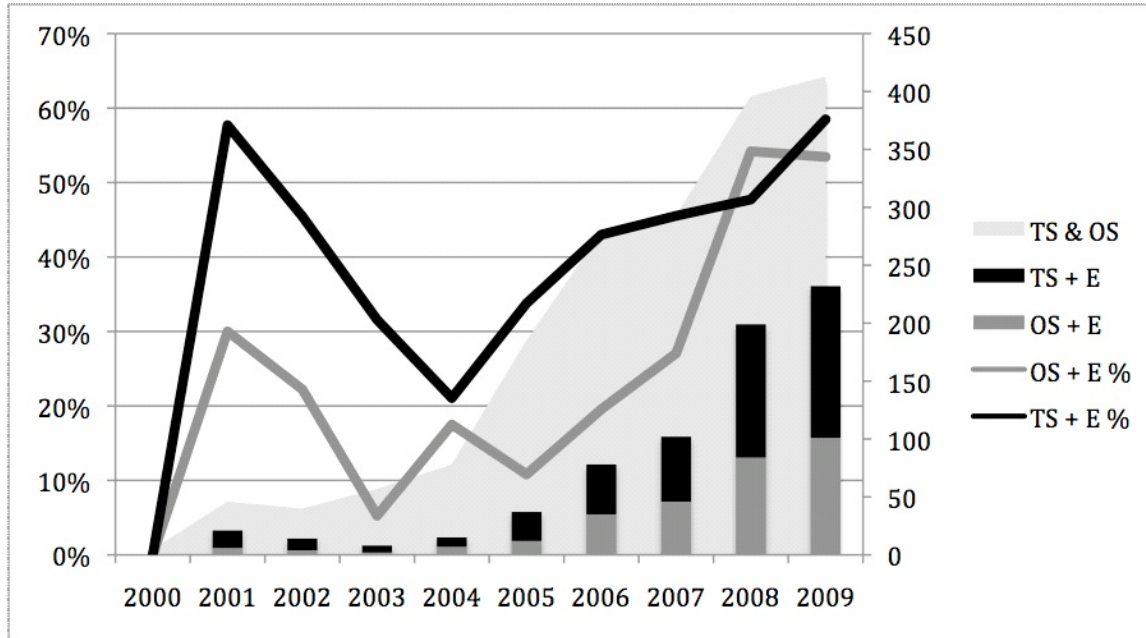
Although broadening scales and strategies, those opposed to the tar sands have also developed a general consensus on policy changes needed in the tar sands. There is widespread agreement on the need not to permit new projects until there has been a satisfactory analysis of the health and environmental impacts of tar sands projects and effective policies in place to prevent these impacts. Across most of these campaigns, there is also a common call for moving Alberta to a post-oil economy more reliant on renewable energy than fossil fuels.<sup>28</sup>

Formal calls for a moratorium have been made since at least the summer of 2007 and now represent a broad consensus across environmental, social, labour, religious and aboriginal organizations. Related campaigns include the Tar Sands Time Out initiative, including a petition for a "Tar Sands Moratorium," led by Sierra Club of Canada Prairie Chapter, and the No New Approvals (NNA) for Tar Sands Development campaign which has compiled signatories of over 40 Albertan environmental NGOs, social or religious NGOs, labour organizations and research institutes, nearly 40 national and international groups of the same broad range of groups, plus individual signatures by well-known academics, politicians, religious leaders and ENGO leaders.<sup>29</sup> Then in February 2008, aboriginal leaders representing nations from Treaties 6, 7 and 8 in Alberta unanimously passed a similar resolution to stop new approvals until there is a development plan, particularly a watershed plan, for the region. But note that a more radical faction of this opposition calls for a complete end to tar sands operations, a position captured in the campaign of organizations like Oil Sands Truth which argues that "nothing short of a full shut down of all related projects in all corners of North America can realistically tackle climate change and environmental devastation." Other organizations such as the Edmonton and Calgary chapters of STOP (Stop the Tar sands Operations Permanently) also support this position through traditional letters to the editors of media and messages to election candidates but also through creative local organizing (hosting Oil Addicts Anonymous parties) and direct actions to shame Albertan politicians publicly.

Over at least the last decade, opposition to how governments have managed and supported growth of tar sands developments extended across provincial and national borders, took on a more adversarial stance with government and industry and developed clearer policy demands for the future development of the tar sands. Importantly, both levels of government have been forced to take note of this opposition given the rising media coverage of the issue over the past decade (see Figure 1).



Figure 1. Major US and world media reports on tar sands and environmental issues<sup>30</sup>



Source: Major US and World Publications database, Lexis-Nexis Academic.

Three major trends can be noted. The first is that the number of articles on the tar sands has massively increased. This not only reflects growing investments and production, but also more vivid debates. The second is that while there were many articles on the subject in the early part of the decade, this concern sharply decreased in 2003 and 2004 before steadily rising again to reach about 50% of all reports engaging with environmental issues. This dip in environmental coverage may be explained by the emphasis placed on energy security rather than environmental concerns. The third is that while until 2006 press articles using the term ‘tar sands’ were twice as likely to engage with environmental issues than those using ‘oil sands,’ the gap narrowed to a point at which environmental concerns are equally mentioned with both terms.<sup>31</sup> This could suggest a mainstreaming of environmental issues into debates over the tar sands. Even in media reports emphasizing the perspective of industry and government, environmental issues are noted.

In this way, the environmental impacts of tar sands developments have become an issue that cannot be ignored by officials. Part of the government response, unfortunately, has been one that deflects attention from the environmental issues and instead calls into question the motives and strategies of those opposed to the developments. The other has been to promote carbon sequestration as the chief solution to the energy and environmental insecurity conundrum.

## Criminalizing Tar Sands Dissent

In response to the growing, coalescing opposition to the tar sands made publicly salient through extensive media coverage, the federal and provincial governments have engaged in a criminalization of dissent against the tar sands. Whereas some actions such as the 18 May 2010 RBC firebombing do fall under criminal law, this process shifts attention from the violence of environmental impacts to the violence of (radical) environmental dissent. In other words, more attention is cast on actors than on issues. This can have major impacts, including a delegitimization of environmental causes (and less radical actors) as well as delays in environmental policy reforms. Commenting in a report on the late 1990s series of bombings against gas infrastructure, the Pembina Institute – one of the main NGOs working on the oil and gas sector in Alberta – argued that

The Alberta government and the oil and gas industry have continued to focus on a handful of violent incidents rather than addressing the underlying causes of the problem. In our view, the problems will not disappear from public discourse through the simple act of arresting a few members of the public.<sup>32</sup>

The authors of this report argued that the attention of government ought to be focused on the underlying causes and grievances giving rise to violent incidents. These include the oil and gas sector's rapid expansion and increasing environmental and health footprint documented by new scientific evidence (contrary to claims made by the industry). Simultaneously, there were concerns about the weakening public and regulatory scrutiny as government environmental protection was deregulated and environmental protection agencies were downsized, resulting in "a situation of *de facto* voluntary compliance" in the tar sands. At the same time, companies reduced environment-related expenditures due to declining prices and, therefore, thinning profit margins. Also, and perhaps most importantly, the government of Alberta's "indifference and a seemingly unstoppable industry [caused] more and more Albertans to react with fear, frustration, and anger."

Since this 1999 report, massive investments in oil and gas have taken place in western Canada while environmental regulation continues to lag and public frustration continues to build.<sup>33</sup> Yet, against the expectations of government officials, there have been no reported attacks on tar sands infrastructure. Six new bombings on gas wellheads and pipelines took place in 2008 and 2009 that were not explicitly related to tar sands issues and none of them resulted in casualties. Until 2010 direct actions against the tar sands involved only civil disobedience resulting in work stoppages. Despite this 'non-violent' character of direct actions against tar sands projects, Premier Stelmach declared that his government would use "the full force of the law" to prosecute anti-tar sands activists, evoking in the press the idea that 'anti-terrorism' measures would be used, especially as Alberta's Solicitor General declared that his office would review its "counter-terrorism management plan."<sup>34</sup> This counter-terrorism plan, aiming among other things at protecting oil and gas infrastructures in Alberta, has been presented by Alberta's Assistant Deputy Minister of Energy as part of a way of "forging North American energy security."<sup>35</sup>

Noting that the concept of 'ecoterrorism' is ill-defined and arguing that it limits understanding and responses to threats against the Canadian energy systems, political scientists Kate Neville and Leanne Smythe propose a broader and less loaded concept of "radical environmental targeting"

(RET). They also argue that “it is crucial that [Canadian security] institutions adapt existing intelligence gathering and response mechanisms to deal effectively with the range of threats that RET activities pose.”<sup>36</sup> Arguably, RET is likely to increase for two main reasons. First, the public is ever more concerned that the responsible government authorities are not responding to the environmental impacts of expanding tar sands developments. Major policy reforms to control the rate of growth or tighten regulation are needed but they are not forthcoming. Second, as energy security increasingly becomes a strategic priority there is likely to be ‘hardening’ of government policy – in short, heavier repression – and, in turn, a possible radicalization of dissent.

Rather than focusing on legitimate public concerns and unpacking public responses to government inaction and repression, some commentators emphasize and blame the ‘radicalized’ environmental activists and aboriginal people. One of the most vocal and influential of these is Tom Flanagan, a University of Calgary political scientist and Stephen Harper’s national campaign director. In a 2009 report for the Canadian Defence and Foreign Affairs Institute, Flanagan identifies five potential social groups capable of jeopardising the security of energy supply from Alberta: individual saboteurs; eco-terrorists; mainstream environmentalists; First Nations; and the Métis people. Among these, individual saboteurs and First Nations are considered the most likely to carry out obstructions and violent incidents. Flanagan describes a worst-case scenario of a coalition “between warrior societies and eco-terrorists,” whereby:

Members of warrior societies would brandish firearms and take public possession of geographical sites, while eco-terrorists would operate clandestinely, firebombing targets over a wide range of territory. The two processes could energize each other, leading in the extreme case to loss of life and a shutdown of industry over a wide area.<sup>37</sup>

Flanagan argues, however, that such coalition “has not happened in the past and seems unlikely in the future because the groups have different social characteristics and conflicting political interests.”<sup>38</sup> What Flanagan sidelines here is that coalitions between First Nations groups and environmentalists have the potential to forestall the type of ‘ecoterrorism’ he fears. Responses to the 18 May 2010 arson of the Royal Bank of Canada branch by an ‘anarchic’ group was instructive in this regard. The Ottawa Police Chief characterized the firebombing as “domestic terrorism” (rather than mischief or sabotage),<sup>39</sup> and there was a general outrage at the arson with several commentators that this was ‘un-Canadian.’ Some anarchist media, which had echoed the importance of coalitions between First Nations and environmentalists in opposing RBC’s financing of tar sands projects, recognized the counterproductive impact of the arson and looked for aboriginal voices to take a guiding position on such actions.<sup>40</sup>

## **Rebranding the Tar Sands as Environmentally Secure**

Alongside securitizing the tar sands issue— which sought to re-focus attention from environmental issues to environmental actors – government officials have also been seeking to address rising climate change concerns in ways that do not substantially challenge the fossil fuel industry. The

solution to the balance sought between energy security and environmental insecurity has been found not in policies limiting emissions but primarily through large government subsidies for carbon sequestration and rebranding exercises for the tar sands.

As the provincial and federal governments (in alliance with oil companies) have actively promoted and defended tar sands developments on both sides of the border, they have sought to redefine the ‘dirty’ image of the tar sands. A central message is that the tar sands are an environmentally viable solution to American energy security. Actively lobbying for tar sands has been evident in, for example, the efforts of Alberta’s office in Washington and the Canadian Ambassador to the United States defending the tar sands from California’s Low Carbon Fuel Standard and the American *Energy Independence and Security Act (EISA)*. Canadian federal government representatives have also been actively supporting the industry as demonstrated most clearly in Environment Minister Jim Prentice’s preemptive defence of the tar sands prior to the official publication of *National Geographic*’s 1 March 2009 article comparing the developments to “dark satanic mills.”<sup>41</sup> Similarly, leading up to the election of President Obama, whose aide had expressed reluctance to import tar sands bitumen given its “unacceptably high carbon emissions,”<sup>42</sup> Prime Minister Harper and key Cabinet committees began a campaign to downplay environmental impacts and emphasize the importance of the tar sands to American energy security.

These statements and meetings occur alongside longstanding but far less public collaborations among Albertan, Canadian and American government representatives to increase tar sands exports to the United States by five-fold and to streamline environmental regulation. The American-led North American Energy Working Group of the Security and Prosperity Partnership meets yearly to advance this agenda. Provincially there is similar support for the industry, notable in, for example, Premier Stelmach’s adamant position that his government will not “touch the brake” on tar sands development,<sup>43</sup> and the provincial government’s ‘rebranding’ campaign to defend the industry against its growing ‘dirty oil’ reputation. On the environmental impact assessment side, a report prepared by Natural Resource Canada – the federal agency in charge of extractive industries – was bluntly criticized by the federal environmental agency for using language that is “too pro-industry, and would make the government to be perceived as biased and thus not credible or serving the public good.”<sup>44</sup>

Water pollution, land degradation and carbon emissions have been the chief environmental concerns. Contaminated water and degraded lands have remain in the eyes of Canadian authorities mostly ‘local’ issues, especially as the main river – the Athabasca River – flows north towards the Arctic through aboriginal settlements whose health issues are largely (if not actively) dismissed.<sup>45</sup> In contrast, carbon joins the global sink and thus more readily affects the tar sands and Canada’s global image and markets. Unsurprisingly it is on carbon that Canadian authorities and oil companies have focused.

This focus on carbon emissions is relatively new and selective. The Canadian government still trails behind most G8 countries in terms of climate-related security debate, while being ironically one of the most territorially exposed within the Organization for Economic Cooperation and Development (OECD) given its vastness and sub-Arctic position. This lag in a major dimension of environmental security is matched by the absence of a national energy security policy. Many critics see that the government has its hands tied with the North America Free Trade Agreement, which

guarantees energy flow to the United States, and that the government's 'market orientation principle' means that energy policy is effectively in the hands of the energy corporations, many of which are foreign-based.<sup>46</sup>

This absence of classic public policy on energy does not mean a lack of focus and interest on the part of the Canadian government. On the contrary, in presenting Canada as an "emerging energy superpower" based on its oil and gas, as well as hydropower and uranium production, Prime Minister Harper has also stressed the country's environmental responsibility. According to Harper:

Here in Alberta, where that energy power can almost be felt, something else must be equally appreciated. That with power comes responsibility. Given the environmental challenges that energy production presents, Alberta must also become a world leader in environmentally-responsible energy production.<sup>47</sup>

Oil companies operating in the tar sands officially echoed this position a year later in a joint report arguing that carbon sequestration represented a "Canadian environmental superpower opportunity."<sup>48</sup>

Barack Obama also formulated such strategy of securing energy while benefiting from 'green capitalism' opportunities. During a presidential electoral campaign speech in a 'coal state,' Obama argued that the United States is "the Saudi Arabia of coal, and the sooner we can figure out how to burn it cleanly, not only are we going to benefit but we can license that technology to countries like China and India that are putting up new coal facilities every week."<sup>49</sup> Reiterating this strategy in the context of his first visit to Canada, Obama stated that,

Oil sands create a big carbon footprint. So the dilemma that Canada faces, the United States faces, and China and the entire world faces is how do we obtain the energy that we need to grow our economies in a way that is not rapidly accelerating climate change... to the extent that Canada and the United States can collaborate on ways that we can sequester carbon ... that's going to be good for everybody.<sup>50</sup>

A high-profile review of the climate change and energy security impacts of Canadian oil sands by the US-based Council of Foreign Relations argues that "oil sands production delivers energy security benefits and climate change damages, but ... both are limited," and concludes that a "healthy balance [between energy security and climate change] is possible."<sup>51</sup> This balance, the report claims, can be achieved by incentives for cutting emissions but not discouraging increased production.<sup>52</sup> One way to achieve this balance is for Canadian taxpayers to clean dirty oil to make it acceptable for the United States. This, in essence, is the approach taken by the current Canadian government. Unsurprisingly, it is also the approach recommended by Shell CEO Peter Voser, who, however, sees the twin demands of greater energy and lower emissions as "extremely tough to balance."<sup>53</sup>

As Canadian Minister of the Environment Jim Prentice declared,

Prime Minister [Harper] often emphasizes that, even though Canada is an emerging energy superpower, the only way to stay competitive in the global energy market is to be a clean energy superpower. Canada's Economic Action Plan includes a \$1 billion Clean Energy Fund ... [that] demonstrates our Government's *balanced* approach to clean energy technologies ... including large-scale carbon capture and storage projects.

With a budget of \$30 billion for 2009, the Economic Action Plan was Canada's federal economic stimulus package after the 2008 financial market collapse. About 80% of the \$1 billion Clean Energy Fund is to fund carbon capture and storage (CCS) projects.<sup>54</sup> Among the \$200 million earmarked for non-CCS projects are notably "new technologies to address environmental challenges in the oil sands, such as water use and tailings." Overall it is about \$3 billion that the Canadian federal and provincial governments budgeted for CCS commercial demonstration projects. The "Clean Energy Dialogue" between Canada and the United States was launched at the initiative of the Harper government in February 2009. Within this dialogue, Environment Minister Prentice argued "[o]ne of the promising areas for such cooperation involves developing and deploying clean energy technology through carbon capture and storage."<sup>55</sup>

Yet carbon sequestration may not resolve the energy and environmental security conundrum for several reasons. At a most basic level, CCS technology is, to date, an unproven solution to carbon emissions from tar sands production. It is also only a piecemeal solution to the overall problem of carbon emissions associated with this unconventional fuel. CCS deals only with emissions associated with the extraction, upgrading and refining of bitumen but it fails to address 'tail-pipe' emissions by end-users (motorists) which are the largest greenhouse gases contributors across the full life-cycle of tar sands fuel. In addition, carbon emissions are only one among various and extensive forms of environmental violence associated with the tar sands (other forms of air pollution, freshwater pollution and over-withdrawal, habitat fragmentation and so on). If CCS technology manages to address the most pressing global dimension associated with this industry, it would permit increased tar sands exploitation and an expansion of these impacts. Ironically, developing CCS infrastructure may further contribute to the broader environmental impacts of industrializing northern Alberta. Carbon sequestration is not a straightforward or complete solution to the energy and environmental security conundrum, in fact, it legitimates and facilitates the expansion of environmentally devastating oil developments.

## **Conclusion**

Alberta is losing the public relations war when it comes to the tar sands.<sup>56</sup>

Western Canada's hydrocarbon frontier has a dual front. The first consists of the advance of a 'dirty' form of energy security provided by the exploitation of unconventional fossil fuels in the face of dwindling conventional supplies. This advance is enabling Canada not only to remain a net hydrocarbon exporter, but also supposedly turning it into a new 'energy superpower,' however doubtful the claim is given the dearth of Canadian policy and dominance of foreign companies.<sup>57</sup> The second consists of the advance of 'technopolitical' provision of environmental security through the capture and sequestration of greenhouse gases from this exploitation. This advance, in turn, is supposedly making Canada a new 'environmental superpower,' a position that again contrasts with its environmental policy record and absence of leadership.<sup>58</sup>

As bitumen production will increase in the future, few believe that carbon sequestration will deliver any major reduction in greenhouse gas emissions within the coming decade. The 'myth' of

such solution, however, delays transition away from fossil fuels. By keeping the dream of cleaning domestic dirty fuels alive, this technology enables the reproduction of a hydrocarbon-based economy, and supposedly the profitability of its shareholders. The federal and provincial governments deflect attention from the continuous, far-reaching violence done *to* the environment in northern Alberta by emphasizing violence done *for* the environment, even though the latter is infrequent and limited in scope. In reality, opposition to the tar sands – while it has spread from local to international levels, moved from working inside institutions amenable to oil interests to offering more direct challenges to industry and government, and articulated clear demands for change – is nearly exclusively non-violent. Rather than dealing with the legitimate concerns raised by those who dissent to tar sands developments and seriously considering their policy positions, both levels of government attempt to criminalize those opposed to the industry through framing it as ‘ecoterrorism,’ a position re-affirmed by the counterproductive radicalizing of dissent.

At the same time, governments promote questionable technological solutions to the most publicly salient environmental problem, carbon emissions. The apparent solution of carbon sequestration, however, re-legitimizes the industry and justifies its expansion (which will lead to further environmental impacts). It also circumvents or silences the tougher questions about the viability of this industry as a whole. Hence the promotion of carbon sequestration as a solution to environmental impacts in the tar sands is an extension of other kinds of government support for the tar sands and it is directly in line with oil industry interests; while publicly soothing, it remains conventional thinking that sees Alberta and Canada mired in a carbon-based economy rather than making the transition to decreased dependence on fossil fuels. Carbon sequestration, understood in this way, is part of the problem and not the solution. In this context, genuine concerns for environmental harm perpetrated through tar sands exploitation will continue to be voiced. As the arson against a Royal Bank of Canada branch in Ottawa suggests, these concerns will also risk providing a self-legitimizing narrative for more radical groups ready to use physical violence against infrastructures, symbols and potentially (even if unintentionally) people as well. Multiple forms of environmental violence will thus continue as long as environmental security takes a backseat to the promotion of highly profitable hydrocarbon-based energy security.

## Notes

1. In contrast to conventional oil, which is produced using the traditional oil well method, unconventional oil sources – which include oil shales, tar sands-based synthetic crudes, and oils produced from natural gas, coal or biomass – are more difficult to extract and/or refine, and are usually more expensive and environmentally damaging.
2. Reserves are currently estimated at 175 to 180 billion barrels. Canada’s National Energy Board (NEB) predicted in 2006 that oil sands production would nearly triple over the next decade, rising from 1.1 million barrels per day (bbd) in 2005 to 3 million bbd by 2015. Exports of oil from the tar sands to the United States reached 1 million bbd in 2009 and were due to surpass those of Mexico and Saudi Arabia by 2010, a prospect that made national news in Canada. See Shawn McCarthy, “Oil Sands on Track to be Biggest Source of U.S. Oil Imports,” *The Globe and Mail*, 19 May 2010.
3. Robert Kunzig, “Scraping Bottom,” *National Geographic*, Vol. 215, No. 3 (March 2009), available at

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- ngm.nationalgeographic.com/2009/03/canadian-oil-sands/kunzig-text.html; Peter Mettler, *Petropolis: Aerial Perspectives on the Alberta Tar Sands* (Greenpeace Canada, 2009).
4. Erin N. Kelly et al., "Oil Sands Development Contributes Polycyclic Aromatic Compounds to the Athabasca River and Its Tributaries," *Proceedings of the National Academy of Sciences of the United States of America*, Vol. 106, No. 52 (2009).
  5. Andrezj Bytnerowicz et al., "Spatial and Temporal Distribution of Ambient Nitric Acid and Ammonia in the Athabasca Oil Sands Region, Alberta," *Journal of Limnology*, Vol. 69, No. 1 (2010); Dean S. Jeffries, Raymond G. Semkin, and John J. Gibson, "Recently Surveyed Lakes in Northern Manitoba and Saskatchewan, Canada: Characteristics and Critical Loads of Acidity," *Journal of Limnology*, Vol. 69, No. 1 (2010).
  6. Alex D. Charpentier, Joule A. Bergerson and Heather L. MacLean, "Understanding the Canadian Oil Sands Industry's Greenhouse Gas Emissions," *Environmental Research Letters*, Vol. 4, No. 1 (2009).
  7. Peter Woodford, "Health Canada Muzzles Oilsands Whistleblower," *National Review of Medicine*, Vol. 4, No. 6 (2007).
  8. See, for example, comments on *The Globe and Mail* article "Protests on Oil Sands Raise Anxieties," 12 October 2009.
  9. A group identifying itself as "FFFC-Ottawa" claimed responsibility for the bombing, and claimed to be motivated by the Royal Bank of Canada's (RBC) sponsoring of the 2010 Winter Olympic games which took place "on stolen indigenous land," as well as the bank's role as "the major financier of Alberta's tar sands, one of the largest industrial projects in human history and perhaps the most destructive." See <http://rabble.ca/blogs/bloggers/statica/2010/05/anarchist-group-claims-responsibility-tuesdays-bank-firebombing>.
  10. In 2007 RBC was the leading Canadian bank for fossil fuel funding, with CAN\$15.9 billion, according to Rainforest Action Network (RAN), *Financing Global Warming: Canadian Banks and Fossil Fuels* (Rainforest Action Network, 2008).
  11. Prime Minister Stephen Harper, "Reviving Canadian Leadership in the World," speech made accepting the Woodrow Wilson Award for Public Service, Ottawa, 5 October 2006.
  12. Philippe Le Billon and Alejandro Cervantes, "Oil Prices, Scarcity and Geographies of War," *Annals of the Association of American Geographers*, Vol. 99, No. 5 (2009).
  13. Andre Plourde, "Oil Sands Royalties and Taxes in Alberta: An Assessment of Key Developments since the Mid-1990s," *Energy Journal*, Vol. 30, No. 1 (2009).
  14. Cited in Paul Anthony Chastko, *Developing Alberta's Oil Sands: From Karl Clark to Kyoto* (Calgary: University of Calgary Press, 2004).
  15. See W. Hunter, et. al., "Our Fair Share: Report of the Alberta Royalty Review Panel", Alberta Royalty Review Panel, 18 September 2007, pp. 23-34, available at [www.albertaroyaltyreview.ca/panel/final\\_report.pdf](http://www.albertaroyaltyreview.ca/panel/final_report.pdf); L. Richardson, "The Oil Sands: Toward Sustainable Development," House of Commons Standing Committee on Natural Resources, 2007; Dan Woynillowicz, Chris Severson-Baker and Marlo Reynolds, *Oil Sands Fever: The Environmental Implications of Canada's Oil Sands Rush* (Pembina Institute, 2005), p. 62. Comparisons of international 'frontier oil' developments show Alberta's 'take,' ranging from approximately 39% to 47%, as well below that of Norway (at around 76%), Venezuela (at approximately 71%), and California, Angola and Alaska (64-67%).
  16. Vice-President Dick Cheney, "National Energy Policy," Washington DC: National Energy Policy Development Group, 2001.
  17. Cy Gonick (ed.), *Energy Security and Climate Change. A Canadian Primer* (Halifax and Winnipeg: Fernwood, 2007).
  18. "Energy Security? The Answer Might Just be Closer than you Think," [energytomorrow.org](http://energytomorrow.org), available



at [www.energytomorrow.org/ViewResource.ashx?id=5992](http://www.energytomorrow.org/ViewResource.ashx?id=5992).

19. Mike Hudema, Greenpeace Climate and Energy Campaigner quoted in “Greenpeace Strikes Again: Activists Occupy Shell Upgrader Expansion Site in Fort Saskatchewan,” 3 October 2009, available at [www.greenpeace.org/canada/en/press/press-releases/tarsands\\_saskatchewan](http://www.greenpeace.org/canada/en/press/press-releases/tarsands_saskatchewan).
20. George Hoberg and Jeffrey Phillips, “Playing Defence: Early Responses to Conflict Expansion in the Oil Sands Policy Subsystem,” paper presented at the Northwestern University conference “Canadian-United States Energy Issues after Copenhagen: Oil Sands and Energy Interdependence,” 28 May 2010.
21. Of course, in some cases ENGOs are influenced by the lobbying power of the tar sands industry, a point raised by those tracking of corporate donations to organizations, such as Ducks Unlimited and the Canadian Boreal Initiative. See Macdonald Stainsby, “Dead Forest Standing: Greenwashing a Tar Sands Sacrifice,” *Vue Weekly*, 18 September 2008, p. 647, available at <http://oilsandstruth.org/dead-forest-standing>.
22. Ed Crooks, “Investors Warned of Risk to Oil Sands Plans,” *Financial Times* [online], 15 September 2008.
23. In addition to these investment protests, one financial institution in Europe is directly supporting the fight of one aboriginal community against tar sands projects: the U.K.’s Co-Operative Financial Services established a trust fund in July 2009 to support the Beaver Lake Cree Nation’s lawsuit to protective its lands against tar sands projects.
24. Canadian Parks and Wilderness Society et. al., “Managing Oil Sands Development for the Long Term: A Declaration by Canada’s Environmental Community,” 2005, available at [www.tarsandsttimeout.ca/images/press/pr\\_os\\_decl\\_part1.pdf](http://www.tarsandsttimeout.ca/images/press/pr_os_decl_part1.pdf).
25. Hoberg and Phillips describe these multi-stakeholder consultative processes as “talk and dig” cooptation strategies used by government and industry to give the illusion of an open debate while having little impact on real policy change and defending the tar sands industry from criticism. Hoberg and Phillips, “Playing Defence.”
26. This pipeline would transport gas from northwestern Albertan, and eventually from the Arctic via the Mackenzie Valley pipeline, to the tar sands projects and into Saskatchewan, potentially to fuel that province’s new tar sands industry.
27. RAN, *Financing Global Warming*. Opposition to the tar sands in the United States is not just emanating from NGOs: Challenges have also come from within political institutions such as the US Mayors with their June 2008 resolution to reduce the use of fuel from tar sands due to its high greenhouse gas intensity. See US Conference of Mayors, “Adopted Resolutions: High-Carbon Fuels,” 20-24 June 2008, available at [usmayors.org/resolutions/76th\\_conference/energy\\_05.asp](http://usmayors.org/resolutions/76th_conference/energy_05.asp).
28. A recent example that gained national attention was the report commissioned by Greenpeace, Sierra Club Prairie Chapter and the Alberta Federation of Labour. See David Thompson, “Green Jobs: It’s Time to Build Alberta’s Future,” 22 April 2009, available at [www.greenpeace.org/raw/content/canada/en/documents-and-links/publications/green-jobs-report.pdf](http://www.greenpeace.org/raw/content/canada/en/documents-and-links/publications/green-jobs-report.pdf).
29. Omgba Luc Désiré, “Oil Rents and the Tenure of the Leaders in Africa,” *Economics Bulletin*, Vol. 3, No. 42 (2007).
30. TS & OS: sum of reports using tar sands or oil sands (articles using both not discounted); TS + E: sum of reports mentioning ‘tar sands’ and ‘environment(al)’; OS + E: sum of reports mentioning ‘oil sands’ and ‘environment(al)’; other two categories idem but in % of total for tar sands or oil sands.
31. Using the term ‘tar sands’ is considered as evidence of a bias against their exploitation – industry and governments actors insist on the usage of ‘oil sands.’ The meaning of the next sentence is unclear for me, although this should be tempered by the fact that it is more widely used in the foreign than in the Canadian press.

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32. Tom Marr-Laing and Chris Severson-Baker, *Beyond Eco-Terrorism: The Deeper Issues Affecting Alberta's Oilpatch* (Drayton Valley: Pembina Institute for Appropriate Development, 1999).
33. See Chris Arsenault, "Loud Bangs and Quiet Canadians: An Analysis of Oil Patch Sabotage," this volume and A. Carter, "Environmental Regulation in the Tar Sands: A Petro-Politics Explanation," in Laurie Adkin et. al. (eds), *Political Ecology and Governance of Alberta* (Vancouver: UBC Press, forthcoming).
34. Carol Christian, "Greenpeace Considering Appeal after Comments by Stelmach," *FortMcMurray Today*, 2009.
35. See [http://webcache.googleusercontent.com/search?q=cache:N5p39BPH6ycJ:www.fina-nafi.org/contentu/partages/presentConf04/Bob\\_taylor.ppt+alberta+energy+counter-terrorism+management+plan&cd=2&hl=fr&ct=clnk&gl=ca](http://webcache.googleusercontent.com/search?q=cache:N5p39BPH6ycJ:www.fina-nafi.org/contentu/partages/presentConf04/Bob_taylor.ppt+alberta+energy+counter-terrorism+management+plan&cd=2&hl=fr&ct=clnk&gl=ca). In 2003, a presentation by the director of Alberta's Security and Information Management Unit listed as its first example of successes the identification of "suspicious requests for maps/oil & gas lines," see [www.pnwer.org/Portals/0/Documents/Presentations/2003-S-Presentations/HomelandSecurityPDF/HomelandSecurity-McDonald.pdf](http://www.pnwer.org/Portals/0/Documents/Presentations/2003-S-Presentations/HomelandSecurityPDF/HomelandSecurity-McDonald.pdf).
36. Kate Neville and Leanne Smythe, "Environmental Activism or National Security Threat? Policy Options for Addressing Radical Environmental Targeting," in *CIR Working Paper No. 49* (Vancouver: Centre for International Studies, 2009).
37. Tom Flanagan, *Resource Industries and Security Issues in Northern Alberta* (Calgary: Canadian Defence and Foreign Affairs Institute, 2009).
38. *Ibid.*
39. "Ottawa Police Chief Declared that this was 'Domestic Terrorism,'" CBC; "RBC Firebomb Arrests Coming: Police," 2010, cited 27 May 2010, available from [www.cbc.ca/canada/ottawa/story/2010/05/20/ottawa-rbc-firebomb-police.html](http://www.cbc.ca/canada/ottawa/story/2010/05/20/ottawa-rbc-firebomb-police.html).
40. See for example, Krystalline Kraus, "Anarchist Group Claims Responsibility for Tuesday's Bank Firebombing," 20 May 2010; Joshua Kahn Russell, "Indigenous Voices Challenge Royal Bank Tar Sands Policies, Supported by Hundreds at Shareholder Meeting," 4 March 2010, available at [www.rabble.ca/blogs/bloggers/joshua-kahn-russell/2010/03/indigenous-voices-challenge-royal-bank-tar-sands-policies](http://www.rabble.ca/blogs/bloggers/joshua-kahn-russell/2010/03/indigenous-voices-challenge-royal-bank-tar-sands-policies).
41. Kunzig, "Scraping Bottom."
42. S. Alberts, "Obama's Oil Vow Threatens Alberta; US Democratic Presidential Hopeful Fires Shot across Tarsands Industry's Bow," *Edmonton Journal*, 25 June 2008, p. A4.
43. See, for example, Archie McLean, "Stelmach Won't 'Brake' Oilsands Growth," *Edmonton Journal*, 5 December 2006, p. A1.
44. Mike Desouza, "Environmental Impact Study on Oilsands Slanted toward Big Oil: Federal Documents," *Calgary Herald*, 7 January 2010.
45. Woodford, "Health Canada Muzzles Oilsands Whistleblower."
46. Gordon Laxer, "Freezing in the Dark: Why Canada Needs Strategic Petroleum Reserve," Edmonton: Parkland Institute and Polaris Institute, 2008; David Thompson, Gordon Laxer and Diana Gibson, "Toward an Energy Security Strategy for Canada: A Discussion Paper," Edmonton: Parkland Institute, 2005.
47. Harper, "Reviving Canadian Leadership in the World." Despite this speech, there is no publicly available detailed policy document (similar to the US National Energy Policy reports) stating what this supposed status means in terms of energy security for Canadians and the world at large.
48. ICO2N, "Carbon Capture and Storage: A Canadian Environmental Superpower Opportunity," 2007.
49. Barack Obama, "Interview in Montana, 30 May 2008," *Flathead Beacon*, 2008.

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50. Barack Obama, "Interview with CBC," aired 17 February 2009.
51. Michael A. Levi, "The Canadian Oil Sands. Energy Security Vs. Climate Change," in *Council Special Report No. 47* (New York: Center for Geoeconomic Studies, Council on Foreign Relations, 2009).
52. *Ibid.*
53. Peter Voser, "Energy Security and Climate Change: A Tough Balance," speech given at the World Business Forum, New York, 7 October 2009, available at [www-static.shell.com/static/media/downloads/speeches/voser\\_world\\_business\\_forum\\_07102009.pdf](http://www-static.shell.com/static/media/downloads/speeches/voser_world_business_forum_07102009.pdf).
54. See Action Plan, "Clean Energy Fund Program," 2009, which includes "at least \$650 million to fund large-scale carbon capture and storage."
55. Jim Prentice, "Speaking Points the Honourable Jim Prentice, P.C., Q.C., M.P., Minister of the Environment, to the Council for Clean and Reliable Energy Ottawa," Ontario, 25 October 2009.
56. Barbara Yaffe, "'In Fact, Every Canadian has a Stake in This': Alberta Oilsands Industry Fights a Public Relations War in Advance of a New Energy Policy in the U.S.," *Vancouver Sun*, 25 November 2008, p. B2.
57. An "Energy Supermarket" might be more appropriate, see Andrew Nikiforuk, *Tar Sands: Dirty Oil and the Future of a Continent* (Greystone Books, 2010), and Annette Hester, "Canada as The 'Emerging Energy Superpower': Testing the Case," Canadian Defence and Foreign Affairs Institute, 2007.
58. On the corporate mobilization of this concept, see ICO2N, "Carbon Capture and Storage." On Canada's environmental policy record, see David Boyd, *Unnatural Law. Rethinking Canadian Environmental Law and Policy* (Vancouver: University of British Columbia, 2003); and recent environmental performance, see Environmental Performance Index 2010, available at <http://epi.yale.edu>.