



# Stuck in the Tar Sands

**How the Federal Government's Proposed Climate Change Strategy Lets Oil Companies off the Hook**

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### EXECUTIVE SUMMARY

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If greenhouse gas pollution from Alberta's tar sands industry continues to grow at its projected rate, it will be nearly impossible for Canada to do its fair share to stop global warming. That's why the credibility of any federal climate change strategy must be measured against its ability to reduce emissions from the tar sands.

Unfortunately, the federal government has proposed a climate change strategy that would allow tar sands producers to more than double their total emissions over the next decade.

In many ways, the plan appears to be designed to accommodate explosive growth in the tar sands sector. Instead of demanding real reductions in greenhouse gas pollution now, the government is proposing to:

**1.**

**Adopt some of the weakest greenhouse gas targets in the industrialized world.**

The Canadian government has helped ensure that tar sands emissions will continue to climb by adopting some of the weakest national targets for greenhouse gas reductions of any industrialized country.

**2.**

**Ignore the recent growth in tar sands emissions.**

Under the Kyoto Protocol, Canada agreed to bring its greenhouse gas pollution below 1990 levels, but the government's new plan uses 2006 as the baseline year, which means that oil companies get a free pass for the rapid growth in tar sands emissions between 1990 and 2006.

**The government could hardly have done a better job if it had deliberately set out to design a climate plan that lets oil companies off the hook.**

3.

**Adopt intensity-based targets instead of hard caps on greenhouse gas pollution, allowing total emissions from the tar sands to keep climbing.**

Total emissions from tar sands facilities would be allowed to climb steadily until 2018 under the government's proposed plan, as long as they showed a modest reduction in the emissions created per barrel of oil.

4.

**Put off critical measures until 2018.**

The government has promised that tougher requirements for industry will be introduced, but not until 2018.

5.

**Award oil companies hundreds of millions of dollars in credits for meeting targets they have already adopted voluntarily.**

The reductions in emissions intensity expected to result from the government's proposed regulations are so weak that oil companies may receive hundreds of millions of dollars worth of carbon credits just for making efficiency improvements they were already planning to make.

6.

**Low-ball the price of oil and downplay future growth in tar sands emissions.**

By using unrealistically low assumptions about the future price of oil, the federal government has calculated projections for the growth in tar sands production and emissions that are likely too low.

7.

**Ignore huge portions of the oil industry's greenhouse gas pollution.**

Two loopholes in the regulatory scheme would exempt at least 25 per cent of oil and gas emissions from the proposed regulations.

8.

**Let oil companies buy their way out at rock-bottom prices instead of forcing them to reduce their own emissions.**

Rather than cutting back on their own emissions, tar sands operators would be able to buy carbon credits priced at \$15/tonne, which is far cheaper than what it would cost to reduce their real emissions.

9.

**Subsidize increased tar sands production.**

To add insult to injury, the federal government is actively fueling rapid growth in the tar sands through generous subsidies.

The government could hardly have done a better job if it had deliberately set out to design a climate plan that lets oil companies off the hook. If the plan goes forward, it will be nearly impossible for Canada to do its fair share in the fight against climate change.

**Canada needs a serious federal climate strategy that requires oil companies to reduce their emissions now. This strategy must include:**

- ✓ National greenhouse gas reduction targets based on a scientific analysis of what is needed to avoid dangerous levels of climate change.
- ✓ A price on greenhouse gas pollution of at least \$30 per tonne by 2009, rising to at least \$75 per tonne by 2020. This would create the incentive for tar sands operators to make real reductions in the emissions they create.
- ✓ A firm cap on total emissions from all industrial sectors.
- ✓ A requirement that all existing and new oil sands operations become “carbon neutral” (meaning all emissions would be either captured and stored, or offset through credible mechanisms) by 2020.
- ✓ An immediate end to all federal subsidies for tar sands development.

## RACING TO EXTRACT CANADA'S DIRTIEST OIL

A boom is underway in Canada's tar sands, where the development of one of the world's most carbon-intensive fuel sources is causing greenhouse gas pollution to skyrocket.

Buried under the forests of Alberta and Saskatchewan are 173 billion recoverable barrels of oil<sup>1</sup>—97 per cent of Canada's total oil reserves.<sup>2</sup> The oil is trapped in a mixture of sand, water, clay, and a thick petroleum substance called bitumen. Canada's bitumen deposits cover an area larger than the size of Nova Scotia and New Brunswick combined.<sup>3</sup>



Figure 1: Canada's tar sands deposits

Although commercial exploitation of Alberta's tar sands began in the 1960s, it was not until the mid-1990s that rising oil prices, a favourable provincial royalty regime, and federal subsidies combined to make the energy-intensive process of extracting oil from the sands a highly profitable venture. Between 1995 and 2004, production more than doubled.<sup>4</sup> Oil companies are now pulling 1.2 million barrels of oil out of Alberta's tar sands every day.<sup>5</sup>

But the boom may have only just begun. The tar sands have become an investment hot spot, with an estimated \$17 billion invested in 2007 and expectations of \$20 billion of investment in 2008.<sup>6</sup> Estimates from government and industry officials put future production at about 3 million barrels per day by 2015, and 5 to 6 million by 2030.<sup>7</sup> About two thirds of the land with potential for development is still available for lease or exploration.<sup>8</sup>

<sup>1</sup> Government of Alberta. "Alberta's oil sands." <http://oilsands.alberta.ca/519.cfm>

<sup>2</sup> The Pembina Institute. *Oil Sands Fever*. Nov. 2005. [www.oilsandswatch.org/pub/203](http://www.oilsandswatch.org/pub/203). p. 4

<sup>3</sup> The total size of the tar sands area is 13.8 million hectares. Source: Canadian Parks and Wilderness Society and Pembina Institute. *Death by a Thousand Cuts: Impacts of In-Situ Oil Sands Development on Alberta's Boreal Forest*. Aug. 2006. <http://www.cpaws-edmonton.org/CPAWS-ResourceR.html>

<sup>4</sup> *Ibid.*, p. 4

<sup>5</sup> Tonda MacCharles. "Canada to sell Obama, McCain on tar sands." Aug. 26, 2008. *The Toronto Star*. <http://www.thestar.com/article/486056>

<sup>6</sup> Shaun Polczer. "Oilsands investment booms despite raft of uncertainties." Aug. 5, 2008. *The Vancouver Sun*.

<sup>7</sup> The Pembina Institute. *Oil Sands Fever*. p. 5

<sup>8</sup> The Pembina Institute. *Haste Makes Waste: The Need for a New Oil Sands Tenure Regime*. April 2007. [www.pembina.org/pub/1409](http://www.pembina.org/pub/1409)

## **An Eco-Social Disaster**

Greenhouse gas emissions are only one of the many harmful effects of tar sands development. Other problems include:

- **Water depletion and pollution**

With companies using 2 to 4.5 barrels of water to produce one barrel of oil, tar sands mining operations are now consuming nearly the same amount of water as a city of 2 million people. Only 5 to 10 per cent of this can be returned to waterways; the rest ends up in huge lakes of toxic waste water, some as large as 12,000 football fields. The Athabasca River is now laden with toxins, and communities downstream are seeing high levels of cancer and other diseases.

- **Toxic air emissions**

Processing tar sands oil releases toxic air pollutants such as sulfur dioxide and lead at much higher levels than those released by conventional oil production.

- **Destruction of the boreal forest**

An area the size of Vancouver Island has already been deforested by tar sands exploration and development. If all potential leases are exploited, a forested area larger than the size Nova Scotia and New Brunswick combined will be crisscrossed by access roads, exploration wells, and pipelines.

- **Violation of native rights**

Several First Nations communities are being harmed by tar sands developments on their traditional lands, and this threatens the fish and game they depend on.

- **Negative socio-economic spin-off from an overheated economy**

Inflation, homelessness, and crumbling public services are creating real problems for average Albertans. The rise in the value of the Canadian dollar, which is tied to oil and gas activity, is hurting manufacturing industry across the country.

- **Threat to energy security**

Even as Canada's natural gas and conventional oil sources are drying up, tar sands companies are consuming staggering amounts of natural gas to produce tar sands crude that's headed mostly to the U.S.

The implications of this development boom for the global climate are stark. It takes a lot of energy to extract bitumen and turn it into oil, and Alberta's tar sands operations currently consume enough natural gas to heat a million homes. By 2012, they are projected to consume double that amount.<sup>9</sup> By using a relatively clean fuel to produce heavy crude oil destined for the gas tanks of automobiles, tar sands producers are achieving the equivalent of turning gold into lead.

Moreover, greenhouse gas emissions from tar sands extraction and upgrading are about five times greater than those from conventional oil production,<sup>10</sup> making this one of the most carbon-intensive fuel sources in the world. Current operations in Alberta produce over 29 million tonnes of greenhouse gas pollution each year<sup>11</sup>—more emissions than all of B.C.'s industry combined.<sup>12</sup>

These already enormous emissions are scheduled to skyrocket over the next decade unless something is done. In the absence of strong regulations to limit emissions, greenhouse gas pollution from the tar sands will more than triple between 2006 and 2020 if all projects proceed as planned. During this period, over forty per cent of the projected increase in Canada's greenhouse gas pollution is expected to be a direct result of tar sands development.<sup>13</sup>

## **TURNING THE CORNER, GETTING STUCK IN THE SANDS**

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The ability to reverse rising emissions from the tar sands has emerged as the yardstick against which any federal climate strategy must be measured. Unfortunately, the government's current strategy, which it touts as an "aggressive strategy to tackle climate change," would put off any serious action on tar sands emissions for at least another decade. Under the government's targets and proposed regulations, tar sands producers would be allowed to more than double their total emissions between now and 2018.<sup>14</sup>

The government's current target for greenhouse gas reductions is to end Canada's growth in emissions by 2010-2012 and to reduce emissions to 20 per cent below the 2006 level by 2020. It aims to meet half of this target with regulations on industrial emitters, such as

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<sup>9</sup> The Pembina Institute. *Oil Sands Fever*. p. 15

<sup>10</sup> Per unit of production. "Conventional" refers to light/medium crude oil. See p. 10, footnote 8, in Environment Canada's *National Inventory Report, 1990-2005: Greenhouse Gas Sources and Sinks in Canada*. Apr. 2007. [http://www.ec.gc.ca/pdb/ghg/inventory\\_report/2005\\_report/tdm-toc\\_eng.cfm](http://www.ec.gc.ca/pdb/ghg/inventory_report/2005_report/tdm-toc_eng.cfm).

<sup>11</sup> Government of Canada. *Turning the Corner: Detailed Emissions and Economic Modelling*. Mar. 2008. [http://www.ec.gc.ca/doc/virage-corner/2008-03/pdf/571\\_eng.pdf](http://www.ec.gc.ca/doc/virage-corner/2008-03/pdf/571_eng.pdf). p. 42

<sup>12</sup> Industrial emissions in B.C. in 2006 were 26.6 million tonnes (Mt). Source: Government of Canada. *Turning the Corner: Canada's Energy and GHG Emissions Projections*. Mar. 2008. [http://www.ec.gc.ca/doc/virage-corner/2008-03/pdf/prov-terr\\_eng.pdf](http://www.ec.gc.ca/doc/virage-corner/2008-03/pdf/prov-terr_eng.pdf) p. 4.

<sup>13</sup> WWF Canada and the Pembina Institute. *Undermining the Environment: The Oil Sands Report Card*. Jan. 2008. <http://pubs.pembina.org/reports/OS-Undermining-Final.pdf>. p. 47.

<sup>14</sup> They are projected to increase from 29 Mt in 2006 to about 76 Mt in 2017 under the regulations. Source: Government of Canada. *Turning the Corner: Detailed Emissions and Economic Modelling*. p. 8.

factories, coal plants, and tar sands facilities. The initial framework for the regulations, which the government refers to as “Turning the Corner,” was released in 2007 and updated in 2008.<sup>15</sup> The proposed regulations would not take effect until 2010 at the earliest.<sup>16</sup>

A review of the government’s proposed strategy shows that the plan is deeply flawed, with several loopholes that cater to rapidly growing tar sands production. The government could hardly have done a better job if it had deliberately set out to design a climate plan that lets oil companies off the hook. Here’s how they propose to do it, through an approach that could be called...

## **How to design a climate strategy that lets oil companies off the hook, in 9 easy steps**

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### **1. Adopt some of the weakest greenhouse gas targets in the industrialized world.**

*The Canadian government has helped ensure that tar sands emissions will continue to climb by adopting some of the weakest national targets for greenhouse gas reductions of any industrialized country.*

The government’s targets for reducing Canada’s greenhouse gas pollution are weaker than those adopted by almost any other industrialized country. They fall far short of what is required of Canada if it is to do its fair share to prevent dangerous climate change.<sup>17</sup> While European Union countries are aiming to bring their emissions to 20 to 30 per cent below 1990 levels by 2020, Canada’s emissions would be barely three per cent below 1990 levels by 2020 if we were to meet the federal government’s targets.<sup>18</sup> By adopting such weak targets, the government has ensured that the burden of reductions falling on industry will be little burden at all, even for sectors with rapidly growing emissions—like the tar sands.

It is unlikely that even these pitiable targets would be met under the government’s weak regulatory framework. Every independent environmental and economic analyst that has studied the plan—including the C.D. Howe Institute, Deutsche Bank, National Round Table on the Environment and the Economy, Pembina Institute, and Tyndall Centre for Climate

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<sup>15</sup> The regulatory framework can be read in full at [www.ec.gc.ca/doc/virage-corner/2008-03/541\\_eng.htm](http://www.ec.gc.ca/doc/virage-corner/2008-03/541_eng.htm).

<sup>16</sup> The draft regulations were set to be complete in Fall 2008, but it is likely that the election called on September 7 will delay the release of these draft regulations.

<sup>17</sup> The Intergovernmental Panel on Climate Change (IPCC) has shown that developed countries must cut their emissions to 25-40 per cent below the 1990 level by 2020 to have a chance of limiting global warming to no more than 2°C—the threshold point where climate change effects become very dangerous.

<sup>18</sup> The Pembina Institute. *Climate Change at the G8 Leaders’ Summit in Hokkaido, Japan*. July 2008. [http://pubs.pembina.org/reports/G8\\_2008\\_Backgrounder2008.pdf](http://pubs.pembina.org/reports/G8_2008_Backgrounder2008.pdf). p. 4

Research—has found that the plan would not succeed in meeting even its own weak targets.<sup>19</sup>

## **2. Ignore the recent growth in tar sands emissions.**

*Under the Kyoto Protocol, Canada agreed to bring its greenhouse gas pollution below 1990 levels, but the government's new plan uses 2006 as the baseline year, which means that oil companies get a free pass for the rapid growth in tar sands emissions between 1990 and 2006.*

Instead of using 1990—the internationally recognized point of reference—as the baseline year for measuring emissions, the government has chosen 2006. Not only does this obscure the weakness of the government's targets by making them difficult to compare to those adopted by other countries, it will also have the effect of privileging the oil and gas sector over other sectors. Because each company or facility would be required to reduce its emissions from their 2006 level, any growth in emissions from 1990 to 2006 is essentially written off.<sup>20</sup>

This means that the sectors that took action to reduce their emissions before 2006 will be at a disadvantage in comparison to the tar sands sector, which has allowed emissions since 1990 to skyrocket from 13 million to more than 29 million tonnes.<sup>21</sup>

## **3. Adopt intensity-based targets instead of hard caps on greenhouse gas pollution, allowing total emissions from the tar sands to keep climbing.**

*Total emissions from tar sands facilities would be allowed to climb steadily until 2018 under the government's proposed plan, as long as they showed a modest reduction in the emissions created per barrel of oil.*

The only thing tar sands companies would be required to do before 2018 would be to reduce their “emissions intensity,” which is the amount of greenhouse gas emitted for each barrel of oil produced. This is like plugging in a new, more energy-efficient fridge every

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<sup>19</sup> See C.D. Howe Institute: *Estimating the Effect of the Canadian Government's 2006-2007 Greenhouse Gas Policies*. Jun. 12, 2007; Deutsche Bank: *A propensity for intensity: the Canadian carbon conundrum*. May 24, 2007; National Round Table on the Environment and the Economy: *Response of the National Round Table on the Environment and the Economy to its Obligations Under the Kyoto Protocol Implementation Act*, July 2008; Tyndall Centre for Climate Change: *Climate Change Policy and Canada's Oil Sand Resources*, May 2007; the Pembina Institute: *The March 2008 Federal Regulatory Framework for Industrial Greenhouse Gas Emissions*, March 2008.

<sup>20</sup> Although the plan does include a mechanism to grant “early action credits” to industrial facilities or companies that made reductions between 1990 and 2006, it is capped at 5 million tonnes, and is insufficient to make up for the relative advantage that industries with growing emissions gain from the use of a 2006 baseline.

<sup>21</sup> Government of Canada. *Turning the Corner: Canada's Energy and GHG Emissions Projections*. Mar. 2008. [http://www.ec.gc.ca/doc/virage-corner/2008-03/571/tm\\_toc\\_eng.htm](http://www.ec.gc.ca/doc/virage-corner/2008-03/571/tm_toc_eng.htm). p. 19.

week, but keeping the old ones running. Average efficiency improves, but your total energy use—and pollution—rises fast.

The steep rise in total oil production from the tar sands will quickly cancel out the reductions in emissions intensity. The government's own calculations show that this perverse approach would allow emissions from tar sands operations to more than double over the next decade.<sup>22</sup>

Such a system isn't used by any other jurisdiction in the world, except for Alberta, home of the tar sands. The Alberta government has developed what are probably the weakest climate change regulations in the industrialized world. This is hardly a model for our federal government to be emulating.

#### **4. Put off critical measures until 2018.**

*The government has promised that tougher requirements for industry will be introduced, but not until 2018.*

The government has stated that tar sands facilities would face tougher requirements under the regulations starting in 2018, but it is unclear whether these requirements would actually put a cap on the industry's total emissions. Even if they would reduce total emissions, this strategy of delaying all serious requirements until 2018 is highly problematic, given that the regulations are intended to produce reductions in Canada's total emissions by 2020.

#### **5. Award oil companies hundreds of millions of dollars in credits for meeting targets they have already adopted voluntarily.**

*The reductions in emissions intensity expected to result from the government's proposed regulations are so weak that oil companies may receive hundreds of millions of dollars worth of carbon credits just for making efficiency improvements they were already planning to make.*

The regulations would require an 18 per cent reduction in intensity by 2010 for facilities built before 2004, and an annual 2 per cent reduction in intensity for those built later. Some tar sands companies have already planned to achieve this level of intensity improvements voluntarily. As a result, companies actually stand to profit from the regulations, because they would be granted credits, which they could then sell to other companies, for intensity reductions that they would have achieved anyway. It is estimated that tar sands companies

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<sup>22</sup> They are projected to increase from 29 Mt in 2006 to about 76 Mt in 2017 under the regulations. Source: Government of Canada. *Turning the Corner: Detailed Emissions and Economic Modelling*, p. 8.

could receive up to \$700 million in credits under the scheme just by delivering business-as-usual gains in efficiency.<sup>23</sup>

## 6.

### **Low-ball the price of oil and downplay future growth in tar sands emissions.**

*By using unrealistically low assumptions about the future price of oil, the federal government has calculated projections for the growth in tar sands production and emissions that are likely too low.*

The government claims its industrial regulations will cause total tar sands emissions to be 30 million tonnes lower in 2017 than they would be in the absence of regulations.<sup>24</sup> But in making these calculations, they've assumed that oil will have an average price of \$50 per barrel through to 2020. This is much lower than many analysts predict, and if we continue to see a price of \$100 a barrel of oil or more, tar sands production and emissions could far exceed what the government has projected. This alone could prevent Canada from meeting even the government's feeble targets.

## 7.

### **Ignore huge portions of the oil industry's greenhouse gas pollution.**

*Two loopholes in the regulatory scheme would exempt at least 25 per cent of oil and gas emissions from the proposed regulations.*

First, "new" facilities—those that began production in 2004 or later—would have a three-year grace period during which they would face no requirements whatsoever to reduce their emissions intensity. Since the tar sands sector has grown so rapidly in recent years, this would leave emissions from many tar sands facilities completely unregulated until 2013 or later.

Second, any "fugitive emissions," which result from leaks and other accidental releases of greenhouse gases, would not be counted towards a facility's total emissions under the main regulatory framework. It just so happens that about a quarter of emissions in the oil and gas sector are fugitive.<sup>25</sup> The government claims that separate regulations covering these emissions will be developed, but it is unclear how stringent they will be.

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<sup>23</sup> WWF Canada. "Oil sands pushing Canada further from Kyoto, WWF and UK think-tank warn." Jun. 6, 2007. [www.wwf.ca/NewsAndFacts/NewsRoom/default.asp?section=archive&page=display&ID=1545&lang=EN](http://www.wwf.ca/NewsAndFacts/NewsRoom/default.asp?section=archive&page=display&ID=1545&lang=EN)

<sup>24</sup> Government of Canada. *Turning the Corner: Detailed Emissions and Economic Modelling*. p. 8

<sup>25</sup> The Pembina Institute. *Analysis of the Government of Canada's April 2007 Greenhouse Gas Policy Announcement*. [www.pembina.org/pub/1464](http://www.pembina.org/pub/1464). p. 2.

## 8.

### **Let oil companies buy their way out at rock-bottom prices instead of forcing them to reduce their own emissions.**

*Rather than cutting back on their own emissions, tar sands operators would be able to buy carbon credits priced at \$15/tonne, which is far cheaper than what it would cost to reduce their real emissions.*

Tar sands facilities would not even have to meet all their requirements by decreasing the emissions intensity of their own operations. Like other industries covered by the regulations, they would be able to meet these requirements through various “compliance mechanisms”, including:

- Buying reductions credits from companies that have reduced their actual emissions intensity beyond the required level;
- Making contributions to a government-run “technology fund” (which would be used for research, development, and deployment of emissions reduction technologies);
- Setting aside money (“pre-certified investments”) for emission-reduction measures that the company intends to implement in the future.

These options would allow companies to avoid their responsibility to make real reductions even in the intensity of their emissions over the next decade. When they put money into the technology fund or set it aside in pre-certified investments, they would receive credit for having achieved reductions that are only expected to result from these investments at some point in the future. There is no way of knowing if or when the investments will yield the expected reductions.

Companies in certain sectors would be able to meet 100 per cent of their requirements by making pre-certified investments until 2018. What’s worse, the price for buying credits through the technology fund and pre-certified investment options is so low—\$15/tonne in 2010, and rising to just under \$25/tonne by 2018 when the technology fund is phased out—that it creates almost no incentive for tar sands operators to make the needed reductions in their real emissions.

Carbon capture and storage, for example (which involves capturing emissions and pumping them underground), is expected to cost \$30/tonne at the very least, and likely closer to \$50/tonne.<sup>26</sup> So until 2018, tar sands companies would be faced with the choice of paying over \$30/tonne to capture and store their real emissions or buying paper credits at \$15/tonne.

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<sup>26</sup> Toxics Watch Society of Alberta and Pembina Institute. *Recommendations to the Government of Alberta on the Implementation of the Climate Change and Emissions Management Fund*. Nov. 2007.  
<http://www.pembina.org/pub/1565>. p. 4

## 9. **Subsidize increased tar sands production.**

*To add insult to injury, the federal government is actively fueling rapid growth in the tar sands through generous subsidies.*

Since the mid-1990s, tar sands companies have enjoyed a 100 per cent tax exemption on the capital costs of new projects. This is four times higher than the 25 per cent write-off allowed for conventional oil and gas projects, and represents foregone tax revenue for Canadians of up to \$1.65 billion between 1997 and 2005.<sup>27</sup> The scheme was originally developed to provide a boost to an industry that faced significant barriers to development. Now, with oil at record prices and tar sands companies pulling in huge profits, the subsidy continues to be available to over 90 per cent of companies in the tar sands, and will not be fully phased out until 2015.<sup>28</sup>

### **WHAT'S NEEDED: A CLIMATE PLAN FOR THE TAR SANDS**

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The staggering environmental effects of producing oil from Alberta's tar sands have led some to label it "the most destructive project on earth." On the international stage, the tar sands are earning Canada notoriety as a leading producer of dirty oil. U.S. lawmakers at the federal, state, and city levels have passed or are considering passing legislation to limit consumption of oil produced from carbon-intensive sources, such as Alberta's tar sands. Notable examples are California's Low Carbon Fuel Standard and the U.S. government's *Energy Independence and Security Act*. The world is waking up to Canada's dirty secret.

At home, there is broad consensus among environmental groups, including many members of Climate Action Network Canada, that there should be no new approvals of tar sands projects until regulations are in place to reverse the sector's disastrous impacts on rivers, forests, wildlife, human health, and greenhouse gas levels. Some groups, such as Greenpeace, argue that a moratorium on new approvals is not enough, and that existing tar sands projects must be shut down due to their unacceptable environmental costs.

If Canada wants to do its fair share to fight climate change, the country needs a serious federal climate strategy that requires oil companies to reduce their emissions now. An immediate tax on greenhouse gas pollution is one important way to encourage emission reductions in the near term, as taxation is a simple mechanism that can be designed and implemented quickly—and we don't have time to waste. Simultaneously, the government

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<sup>27</sup> The Pembina Institute. *Thinking Like an Owner: Fact Sheet*. Nov. 2006. [www.pembina.org/pub/1338](http://www.pembina.org/pub/1338)

<sup>28</sup> KAIROS. *Federal Subsidies to Fossil Fuel Producers*. Apr. 2008. p. 1

should start developing a rigorous cap-and-trade system that can be implemented within 12 to 18 months to complement this carbon tax.

In order to adequately address tar sands emissions, any federal climate strategy must also include the following features:

- ✓ National targets for greenhouse gas reductions based on a scientific analysis of what is needed to avoid dangerous levels of climate change: 25 to 40 per cent below 1990 levels by 2020, and 80 to 95 per cent by 2050.
- ✓ A price on greenhouse gas pollution of at least \$30 per tonne by 2009, rising to at least \$75 per tonne by 2020. This would create the incentive for tar sands operators to make real reductions in the emissions they create.
- ✓ A firm cap on total emissions from all industrial sectors.
- ✓ A requirement that all existing and new oil sands operations become “carbon neutral” (meaning all emissions would be either captured and stored, or offset through credible mechanisms) by 2020. This would cost companies as little as a few dollars per barrel of oil.<sup>29</sup>
- ✓ An immediate end to all tax write-offs and other subsidies for tar sands producers. In the face of the massive threat posed by climate change to the planet and current and future generations, continued subsidies to carbon-intensive industries are deplorable.

## CONCLUSION

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The federal government’s proposed plan to reduce greenhouse gas emissions is completely inadequate, because it fails to crack down on skyrocketing emissions from the tar sands, one of Canada’s most carbon-intensive and fastest-growing industries. The plan would permit a more than doubling of greenhouse gas pollution from the tar sands over the next decade, making it nearly impossible for Canada to do its fair share to stop global warming.

Canadians do not have to settle for such an irresponsible approach to the challenge of climate change. We deserve real action from the government, in the form of science-based targets, an immediate and meaningful price on carbon emissions, a firm cap on industrial emissions, and a requirement that all tar sands operations become carbon neutral by 2020.

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<sup>29</sup> The Pembina Institute. *Carbon Neutral Oil Sands by 2020* (Fact Sheet). Oct. 2006. <http://www.pembina.org/pub/1318>.

## Appendix I: Recommended Reading

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*A Dirty Little Secret: Canada's Global Warming Engine.* The Polaris Institute.

See: [www.tarsandswatch.org/node?page=1](http://www.tarsandswatch.org/node?page=1)

*Carbon Neutral by 2020: A Leadership Opportunity in Canada's Oil Sands.* The Pembina Institute. Oct. 2006. [www.oilsandswatch.org/pub/1316](http://www.oilsandswatch.org/pub/1316)

*The Climate Implications of Canada's Oil Sands Development.* The Pembina Institute. Nov. 2005. [www.oilsandswatch.org/pub/586](http://www.oilsandswatch.org/pub/586)

*Death by a Thousand Cuts: Impacts of In-Situ Oil Sands Development on Alberta's Boreal Forest.* The Canadian Parks and Wilderness Society and the Pembina Institute. Aug. 2006. [www.cpaws-edmonton.org/CPAWS-ResourceR.html](http://www.cpaws-edmonton.org/CPAWS-ResourceR.html)

*Fueling Fortress America: A Report on the Athabasca Tar Sands and U.S. Demands for Canada's Energy.* The Canadian Centre for Policy Alternatives. Mar. 2006.

[www.tarsandswatch.org/files/Fuelling\\_Fortress\\_America-5\\_0.pdf](http://www.tarsandswatch.org/files/Fuelling_Fortress_America-5_0.pdf)

*Managing Oil Sands Development for the Long Term: A Declaration by Canada's Environmental Community.* Dec. 2005.

[www.wwf.ca/AboutWWF/WhatWeDo/ConservationPrograms/RESOURCES/PDF/OilSands\\_declar\\_FullENGOSDec12005.pdf](http://www.wwf.ca/AboutWWF/WhatWeDo/ConservationPrograms/RESOURCES/PDF/OilSands_declar_FullENGOSDec12005.pdf)

*The March 2008 Federal Regulatory Framework for Industrial Greenhouse Gas Emissions.* The Pembina Institute. Mar. 2008. <http://climate.pembina.org/pub/1614>

*Moratorium Now! 6 Good Reasons Why There Should Be a Moratorium Now on the Expansion of the Alberta Tar Sands.* The Polaris Institute.

See: [www.tarsandswatch.org/node?page=1](http://www.tarsandswatch.org/node?page=1)

*Unconventional Oil: Scraping the Bottom of the Barrel?* WWF UK and The Co-operative Financial Services. Aug. 2008. [www.wwf.org.uk/filelibrary/pdf/scraping\\_barrell.pdf](http://www.wwf.org.uk/filelibrary/pdf/scraping_barrell.pdf)

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