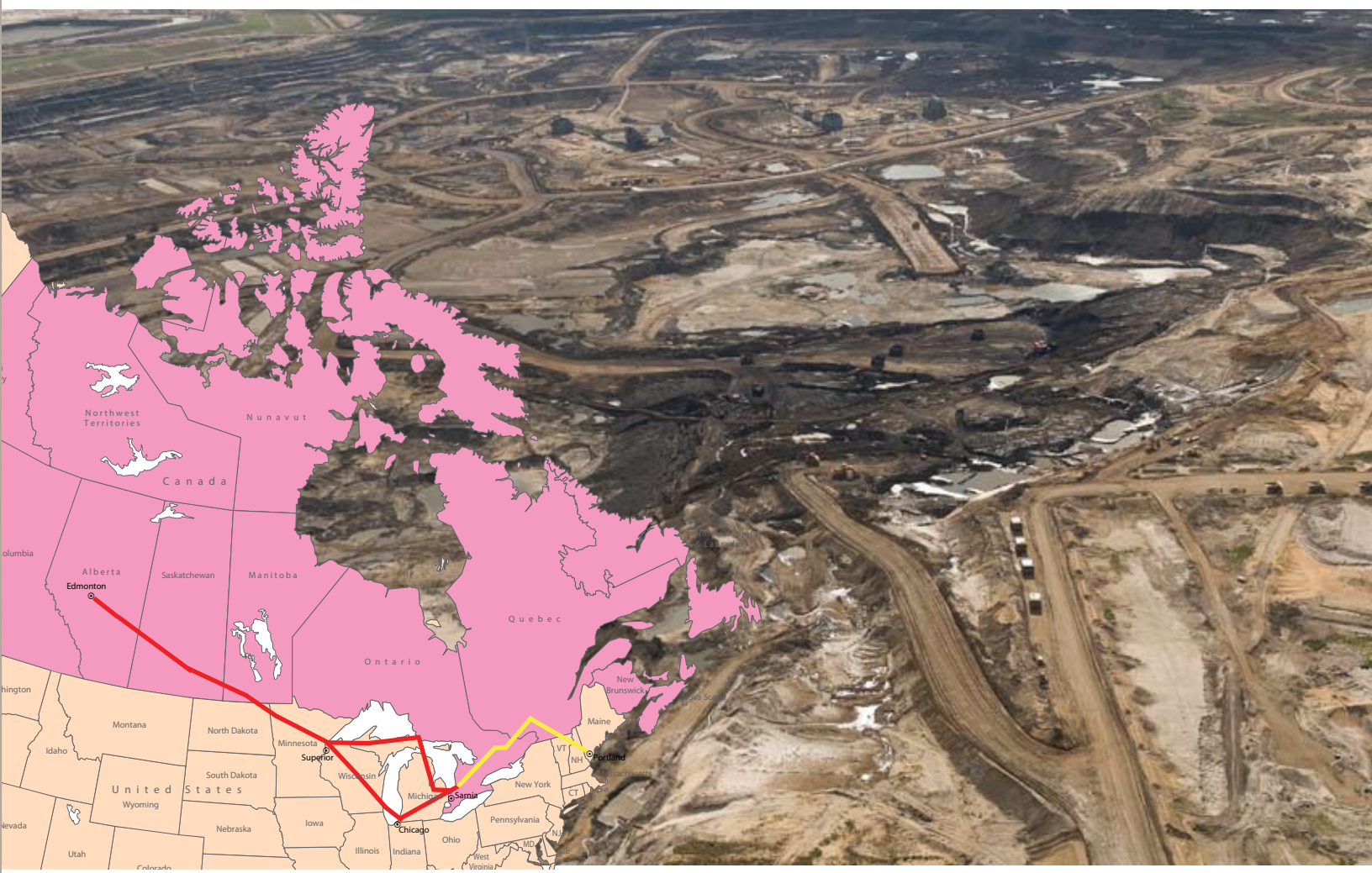


FREEDOM FROM DIRTY OIL:



ONTARIO'S TAR SANDS DECISION



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Freedom from Dirty Oil: Ontario's Tar Sands Decision

by Matt Price, Environmental Defence and Gillian McEachern, Forest Ethics

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The federal government is missing in action on regulating tar sands destruction.

EXECUTIVE SUMMARY

Pipeline giant Enbridge has plans to change how oil is piped to Ontario. The project is called “Trailbreaker,” and it will mean that Ontario’s future oil supply will be tied entirely to the tar sands, the source of the most carbon-heavy oil in the world. This proposal comes at a time when Ontario has pledged to reduce greenhouse gas emissions from its transportation sector, and at a time when it is seeking opportunities to stimulate the economy by creating “green” jobs in new industries.

Last year Ontarians sent \$21 billion out of the province to buy oil, three quarters of which was used by the province’s transportation system. Of the 22 billion litres of oil consumed each year in Ontario – a third of all oil consumption in Canada – one fifth now comes from Alberta’s tar sands.

Enbridge’s Trailbreaker proposal would reverse the flow of oil in the pipeline from Montreal to Sarnia, cutting off Ontario’s access to “sweet light” crude from overseas oil and making it entirely dependent on Alberta for future supply. With conventional oil in Alberta running out, the proposal means that Ontario’s future oil supply would be entirely dependent on the tar sands, the most environmentally destructive oil on the planet. Ontarians would be denied a choice at the gas pump – either dirty oil or dirty oil.

Producing a barrel of tar sands oil creates three times more greenhouse gas emissions than conventional oil. Meanwhile, the tar sands are the fastest growing source of emissions in Canada and the reason for climate policy gridlock in Ottawa. Tar sands production also destroys large areas of boreal forest and creates toxic tailings lakes so big they can be observed from space. The federal government is missing in action on regulating the tar sands.

Accepting Trailbreaker would undermine Ontario’s energy security by making the province entirely dependent on a single, risky source of oil. Furthermore, such a situation could lead to

Making tar sands oil leads to three times the greenhouse gas emissions as regular oil.

The federal government is missing in action on regulating the tar sands.

increased air and water pollution in Ontario’s refineries with raw “bitumen” becoming the main feedstock. Accepting Trailbreaker would break the Ontario Government’s commitment to low carbon fuels, because tar sands oil is 15 to 40 percent more carbon heavy than conventional oil at the wheel when burned. Even using the conservative estimate that tar sands oil is 15 percent more carbon heavy than conventional oil,²² if Ontario switched to solely tar sands-derived fuel it would be responsible for an additional 10 million tonnes of greenhouse gas emissions.

There is a better way. Rather than increasing consumption of tar sands oil, Ontario can create green jobs, send less money out of province for oil, and build a more sustainable transportation system by:

1. Investing in Urban Infill – Fewer and Shorter Trips

Urban infill involves building homes, business and public facilities on unused lands within existing urban areas. Urban sprawl costs 40 to 400 percent more than infill development and results in greater automobile use and environmental impacts. It has been estimated that more than 800,000 jobs could be created in the United States through investment in retrofitting and new green construction, and that more construction jobs are created by smart growth than by sprawl development.

2. Investing in Transit and Train Freight – Bundling People and Goods

Increasing public transit use makes good economic and environmental sense. Transport Canada estimates that traffic congestion in urban centres costs Canadians up to \$3.7 billion each year. Investment in public transit creates jobs, during construction and operations, with a multiplier effect of creating 2 to 2.5 additional jobs. In addition, rail transport is more fuel efficient than transport trucks, and more labour intensive. A report estimated that 250,000 jobs could be created in the U.S. by a 10-year investment in rail construction and maintenance.

3. Investing in Efficient Vehicles – Less Costly Trips

Ontario’s vehicle fleet is 24 percent less efficient than Europe’s. If the fleet was at least as fuel efficient as Europe’s, Ontario travelers would burn 2.8 billion litres less gasoline and 829 million litres less diesel, spending about \$4 billion less on fuel and saving about 9 million tonnes of greenhouse gases in the process. In addition, with electric and hybrid technology rapidly evolving, the need to burn oil can drop dramatically.

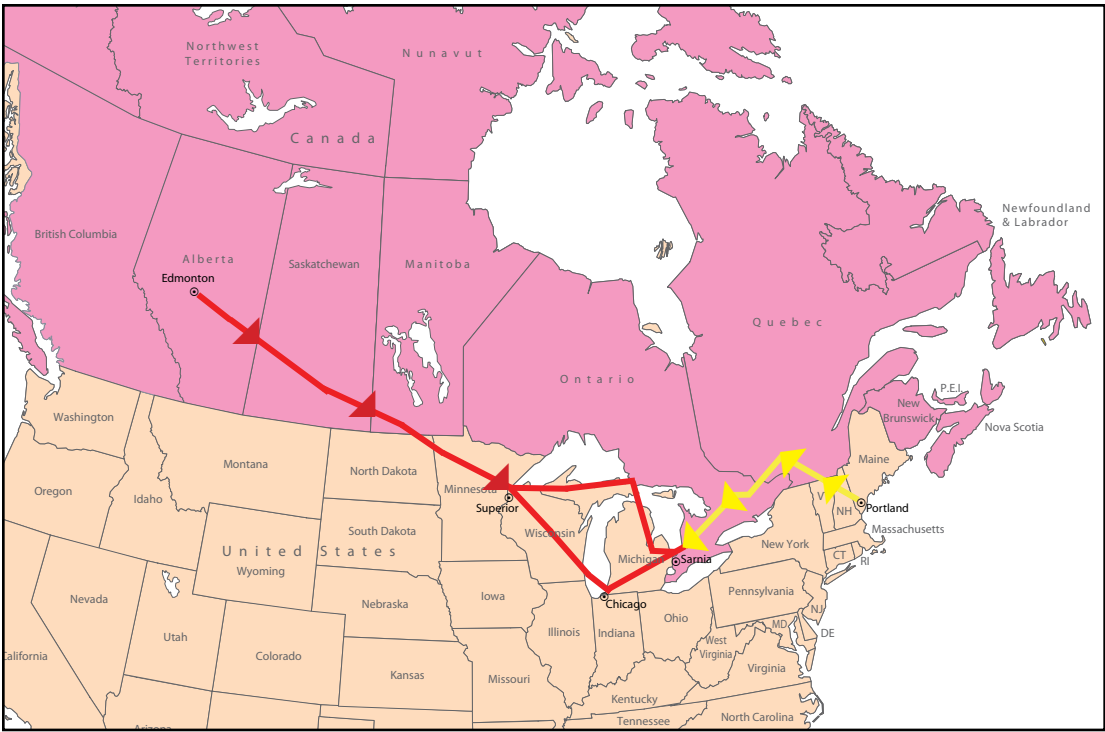
4. Investing in Alternative Fuels – Green Powered Trips

Ontario has joined other progressive jurisdictions in committing to a Low Carbon Fuel Standard (LCFS), an initiative to reduce by 10 percent the “life cycle” carbon content of fuels sold in Ontario by 2020. This could spur jobs in Ontario by powering vehicles in greener ways, for example with electricity from Ontario wind power, delivered with a “smart grid” that lets electric car owners sell power back to the grid when needed.

Shipping goods by heavy truck produces more than double the greenhouse gases than shipping by train, and creates fewer jobs.



Ontario has the choice of creating green jobs by investing in the transformation of its transportation sector, by reducing fuel consumption, and by using lower carbon fuels. During the inevitable transition away from fossil fuels, Ontario needs to maintain access to cost-effective and less damaging sources of oil. This means that when the Trailbreaker proposal comes before the National Energy Board, the Government of Ontario needs to intervene to reject it.



Ontario now receives oil both from Alberta in the West, and from overseas via Montreal in the East.



Enbridge wants to cut Ontario off from overseas oil, making Ontarians entirely dependent on dirty oil from the tar sands.

INTRODUCTION

Ontario is facing a monumental change to its fuel supply that would bind it exclusively to Alberta's tar sands, the most environmentally destructive source of oil. This decision is coming at a time when there is a need to keep money and jobs in Ontario and to tackle global warming by dramatically reducing the consumption of fossil fuels. Luckily, the solutions for these challenges can go hand-in-hand.

In the next few months, the pipeline giant Enbridge will be applying to the National Energy Board (NEB) for permission to reverse the flow of the pipeline between Montreal and Sarnia that currently brings oil from overseas to Ontario.

The company calls this proposal "Trailbreaker" because the primary intent is to 'break a trail' for tar sands oil to U.S. refineries on the East Coast and in the Gulf of Mexico, and to refineries in Europe.

The impact on Ontario, however, would be to force its refineries to rely exclusively on oil from Alberta, since other sources now imported from Montreal would be cut off. Given that Alberta is running out of conventional oil, the proposal would mean that Ontario would receive its oil from the tar sands, which produces three times the greenhouse gas emissions as regular oil.

The backdrop for this decision is an economic downturn in Ontario that is leading to widespread job losses. Both the provincial and federal governments are pursuing stimulus packages to put people to work.

In 2008, Ontario spent \$21 billion to buy oil from outside of the province. Only a small portion of that total was used to manufacture products in Ontario. By contrast, more than three-quarters of the \$21 billion was spent in Ontario's transportation system. It is a system that not only loses Ontario money through inefficiency, but produces the largest amount of greenhouse gases of any sector.

Installing renewable energy such as wind power reduces greenhouse gas emissions and creates green jobs. Germany has created 240,000 jobs in renewable energy. Ontario has massive wind power potential waiting to be tapped.



An opportunity exists right now in Ontario to produce more green jobs at home while reducing the province's massive thirst for oil. Seizing this opportunity means saying no to Trailbreaker, as it would lock Ontario's fuel infrastructure to tar sands oil.

Thousands of green jobs could be created in Ontario through pursuing urban infill development, new transit projects, more efficient vehicles and alternative fuels. And, export products like fuel efficient cars, high speed trains and wind turbines could be developed in the process, creating even more jobs.

FUELING ONTARIO TODAY

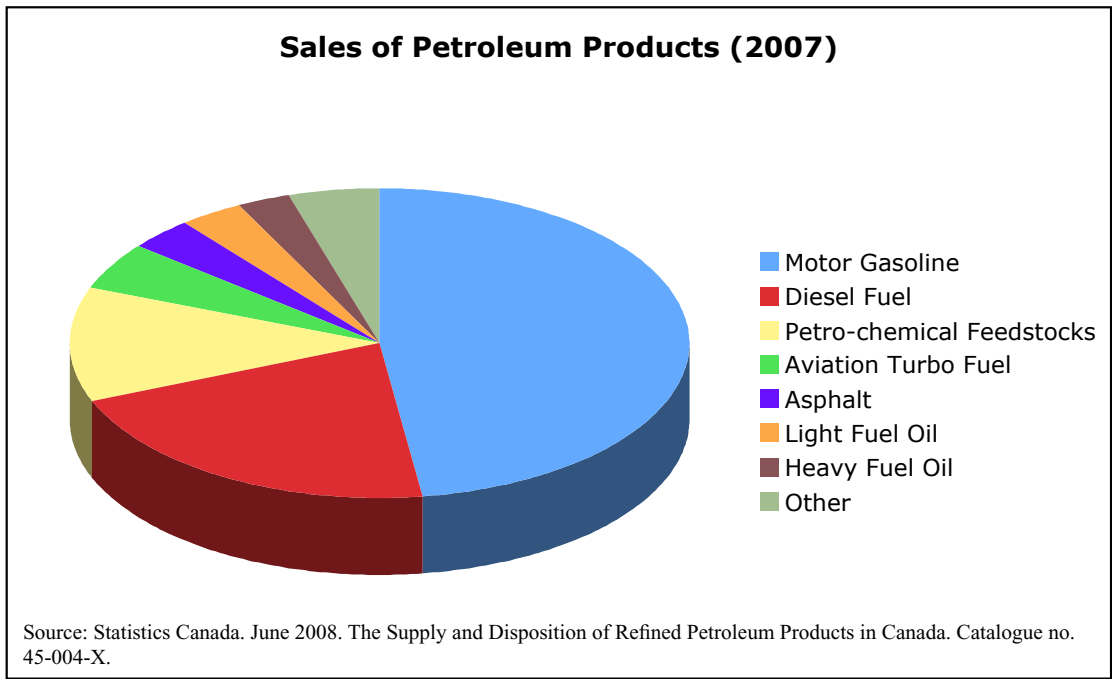
Ontario's economy requires the movement of people and goods. Moving around, though, can have a higher or lower financial cost, depending on the distance and the means of transport. The same is true for the related environmental cost. Unfortunately, Ontario has a transportation system that has evolved based on cheap oil, creating a legacy of inefficient infrastructure and a dependence on polluting cars and trucks.

Ontario's Costly Oil Addiction

Ontario consumes more than 200 million barrels of petroleum products each year, or 33 percent of all petroleum products refined in Canada.¹ But Ontario produces only 0.4 percent of what it consumes,² meaning that it imports almost all of its fuel from other provinces and countries.

Oil Price	Money Leaving Ontario
\$50	\$10 billion/year
\$100	\$20 billion/year
\$150	\$30 billion/year

The vast majority of Ontario's oil consumption is used in transportation. Seventy-seven percent of the oil ends up as gasoline and diesel for cars and trucks, jet fuel and asphalt to build roads and highways. This means that of the approximately \$21 billion Ontarians spent to buy oil from outside the province in 2008, more than \$16 billion was spent to fuel the transportation system.³





Matt Price

Ontario currently receives 22 percent of its oil from the tar sands, the majority of which is processed by Suncor Energy and sold to drivers at Sunoco gas stations.

conventional oil and tar sands oil. At present, 22 percent of Ontario’s oil is from the tar sands at a cost of \$4.6 billion each year.

Ontario’s Pipelines and Refineries

Ontario has four major refineries, located in Sarnia and Nanticoke. These facilities are fed by an oil pipeline system that has two main inbound pathways. One pathway is from the West, through Michigan and extending across North America to Alberta. The other pathway is from Montreal in the East, which is fed by tankers docking in Portland, Maine from points overseas.

About 60 percent of Ontario’s oil supply now comes from Western Canada, and the other 40 percent is imported from the North Sea, OPEC countries and Eastern Canada. Oil coming from overseas is what the industry calls “sweet light crude,” or low sulphur, less heavy grades of oil. The oil from Western Canada is now a mix of

Figure 1: Source of Crude Oil Supply to Ontario Refineries (2007)

	Thousand cubic metres	Percent
Total domestic crude	13,996	63.5
Western	13,276	60.2
Eastern	720	3.3
Total crude imports	8,055	36.5
OPEC	2,977	13.5
North Sea	3,105	14.1
North America	1,096	5.0
Other	877	4.0
Total	22,051	

Source: Statistics Canada. June 2008. The Supply and Disposition of Refined Petroleum Products in Canada. Catalogue no. 45-004-X.

Oil Drives Ontario’s Greenhouse Gas Emissions

Transportation accounts for 31 percent of greenhouse gas emissions in Ontario, more than power generation, and represents the fastest growing source of emissions in the province.⁴

Ontario has set targets for reducing greenhouse emissions to six percent below 1990 levels by 2014 and 15 percent below 1990 levels by 2020. To reach these goals, the government wants 19 percent of the reduction in greenhouse gas emissions by 2020 to come from the transportation sector – 13 percent from passenger vehicles and transit, and six percent from freight and diesel.

This means that in order for the province to reach its goals for tackling global warming, emissions from transportation need to be cut by about 20 million tonnes by 2020.

Vehicles are also a major source of smog-causing pollution. They are responsible for 35 percent of all nitrogen oxide pollution and 19 percent of volatile organic compounds released in Ontario each year. The health effects due to air pollution are estimated to cost the province's economy \$9.9 billion per year.⁵

Enabling Oil's Dominance in Ontario

Ontario suffers from decades of unchecked urban sprawl resulting in low-density suburban housing, long commuting distances, greater investment in highways than public transit, and heavy reliance on cars as the main way of getting around. Business as usual trends over the next 30 years could lead to daily commuting distances of passenger vehicles increasing by 64 percent, emissions from transportation increasing by 42 percent, and the cost of traffic in the 905 region rising to \$3.8 billion per year.⁶

The Ontario government has shown leadership by adopting policies and legislation that promote smart growth – land use and transportation planning to reduce sprawl and create more sustainable communities. Despite these changes, a recent study found the majority of municipalities in southern Ontario continue to have low density and long commuting distances.⁷ And Ontario is becoming more reliant on cars: between 1986 and 2006, the number of trips made by cars in the Greater Toronto Area grew faster than the population.⁸

Furthermore, despite an increase in funding for public transit by the province, highway investment still trumps transit. In 2007-2008, the Ontario government was planning to spend \$1.7 billion on highways, half a billion more than planned spending on public transit.⁹ Massive expansions of Highways 404, 407 and 427 are still being planned for a cost of \$5 billion, as well as several regional road-widening projects costing an additional \$5 billion. Should these projects go ahead, they will induce sprawl and perpetuate dependence on cars.



Tar sands extraction produces 1.8 billion litres of toxic tailing each day. These toxic tailings ponds are leaking into surrounding groundwater at an estimated rate of four billion litres per year.

Louis Helbig

“Economics and environmental objectives coincide in requiring drastic cuts in Ontario’s dependence on fossil fuels.”¹⁰
– Don Drummond and Derek Burleton, TD Economics

THE DIRTY OIL PATHWAY – TRAILBREAKER

For all of Ontario’s existing shortcomings when it comes to the financial and environmental costs of its imported oil needs, the situation could still get worse. There is no such thing as “good” oil, but some sources are worse than others, and the worst for the environment comes from the tar sands.

Taking Away Ontarians’ Fuel Choice

Enbridge will soon apply to the National Energy Board for permission to reverse the flow of its Line 9 pipeline between Sarnia and Montreal. The so-called Trailbreaker project would take 230,000 barrels a day of dirty tar sands oil from Alberta through Sarnia to Montreal. Some of the oil may stay in Montreal for refining, but the majority would keep going to Portland, Maine to be loaded into tankers headed for the U.S. East Coast and Gulf, and maybe Europe.¹¹

The Trailbreaker project is part of a push for greater pipeline capacity to markets in Eastern Canada and the U.S. to facilitate the expansion of the tar sands.

This pipeline reversal would cut off Ontario’s access to imported and offshore oil, making Ontario solely dependent on Alberta. Current output from the Western Canada Sedimentary Basin is about half conventional oil and half tar sands oil.¹²

The picture gets worse over time. Because of declining output of conventional oil and the massive expansion planned for the tar sands, 80 percent of oil from Western Canada will be from tar sands by 2015.¹³ Over time, Ontario would be entirely beholden to dirty oil.

Imperial Oil’s Sarnia refinery released more than 30 million kilograms of toxic chemicals and 1.7 million tonnes of greenhouse gases in 2005. Ontario refinery pollution could get worse by processing “bitumen” from the tar sands.



Ron Plain

Making Sarnia's Pollution Worse?

The environmental impacts of the tar sands are not confined to Alberta. The four refineries in Sarnia and Nanticoke are already some of Ontario's largest polluters, and approving Trailbreaker could make them more so.

In 2005, combined releases of air pollutants from Ontario's refineries was more than 63 million kg.¹⁴ The refineries pump large amounts of sulphur dioxide, smog-inducing volatile organic compounds and suspected respiratory, developmental and reproductive toxins into the air. They are also among some of the biggest point sources of greenhouse gas emissions in the province.

Should Trailbreaker go ahead and Ontario refineries receive increasing amounts of tar sands oil, pollution from the refineries could increase. Because tar sands production first yields thick tarry "bitumen," a step must be taken before refining, called "upgrading," which breaks down the larger hydrocarbon molecules by using heat and adding hydrogen.

Upgrading is a heavily polluting process because raw bitumen contains 11 times more sulphur, six times more nitrogen, 11 times more nickel, and five times more lead than regular oil.¹⁵ There has been a trend away from upgrading in Alberta because of the high costs,¹⁶ so if more bitumen comes to Ontario, more pollution from upgrading would be produced in Ontario.

Dirty Oil

Alberta's tar sands are the most environmentally destructive project on Earth. Nowhere else are humans planning to destroy an area the size of Florida and create leaking toxic tailings ponds so big you can see them from space, all for oil that leads to three times the greenhouse gas emissions per barrel as regular oil.

There is no oil in the tar sands — only a thick tar-like substance called "bitumen" that is mixed with clay and sand, making for a dirty process to get it out with giant machines and huge amounts of energy and water.

Tar sands greenhouse gas emissions – not counting burning the oil later – are estimated at about 40 million tonnes for 2008,¹⁷ but if left unchecked this could explode to 142 million tonnes by 2020.¹⁸ This would essentially wipe out Ontario's planned 100 million tonne reduction.

Tar sands are Canada's fastest growing source of greenhouse gas emissions and the reason Ottawa has proposed weak "intensity" targets for greenhouse gases for Canada that require less pollution per unit of production but let overall emissions rise with increases in output. In this way, the tar sands are holding Canada hostage on global warming.

The tar sands are creating a massive toxic legacy: industry produces about 1.8 billion litres of toxic tailings every day¹⁹ and puts them in lakes now covering an area of 130 km.²⁰ These toxic lakes, containing harmful substances like naphthenic acid, polycyclic aromatic hydrocarbons, and heavy metals, are leaking into surrounding groundwater at an estimated rate of four billion litres per year, enough to fill the Toronto's Rogers Centre (formerly the SkyDome) two-and-a-half times.²¹

Even using the conservative estimate that tar sands oil is 15 percent more carbon heavy than conventional oil,²² if Ontario derived 100 percent of its oil from the tar sands it would be responsible for an additional 10 million tonnes²³ of greenhouse gas emissions.

The Landowner Pipeline Burden

Landowners already bear a heavy burden to bring oil and gas to Ontario. When the oil and gas industry wants to put a pipeline across someone's property, that person can't say no. Moreover, industry can be allowed to leave the pipe in the ground when they are finished, which raises issues of long-term contamination.

The Trailbreaker proposal could make matters worse. Line 9 is now bringing "sweet light" oil from Montreal to Sarnia, but if reversed would take blended bitumen in the other direction. Blended bitumen can be 10 to 20 times more corrosive than regular oil,²⁵ posing a greater risk to landowners who have a pipeline that is already 30 years old.

For more information see the Canadian Association of Pipeline Landowners at www.pipelinelandowners.com

Ontario could become entirely dependent on tar sands oil if Trailbreaker goes ahead. Pictured here is the Syncrude mine in Alberta—the operations strip away boreal forest and dig up to 100 metres into the earth.



Chris Evans/The Pembina Institute

Trailbreaker Undermines Ontario’s Energy Security

Ontario must move away from oil for both economic and environmental reasons, but we will still use some oil in the years to come. In this light, Trailbreaker poses a threat to Ontario’s energy security over the medium term.

It is never a prudent to rely on a single source of anything – keeping all your eggs in one basket – and this is particularly true for tar sands production, which has more risk associated with it than conventional oil production.

First Nations Oppose Tar Sands Damage

First Nations at both ends of tar sands pipelines are being adversely affected by the industry. The Beaver Lake, Chipewyan Prairie, and Athabasca Chipewyan First Nations are suing over the destruction of traditional hunting and fishing grounds by tar sands activities.²⁶ In February 2008, the Treaty Chiefs of Treaties 6, 7 and 8 of Alberta unanimously passed a resolution calling for a tar sands moratorium.²⁷ The Mikisew Cree and Athabasca Chipewyan First Nation are outspoken about fears of health impacts due to tar sands water contamination. On the other end of the pipe, the Aamjiwnaang First Nation in heavily polluted Sarnia is experiencing a two to one birth ratio of girls to boys among other serious health impacts.²⁸

First, tar sands oil costs more to produce than regular oil, needing a world oil price of \$80 per barrel to achieve an acceptable return on investment.²³ With the recent economic downturn and the resulting drop in the price of oil, most tar sands expansion plans have been shelved. If oil prices remain volatile, tar sands production is not secure.

Second, tar sands production is also risky on environmental grounds, since the public will not forever tolerate the destruction unfolding in Northern Alberta. Just two days after the election of Barack Obama in the U.S., Prime Minister Harper saw that a North American cap-and-trade system with “hard caps” instead of weak “intensity” targets was inevitable and began to reach out to discuss how this will be done.²⁴

Hard caps on tar sands emissions, coupled with measures that force companies to clean up impacts like toxic tailings ponds will pose further challenges to the economics of tar sands production. Ontario is more secure sticking with less risky and less polluting sources of oil as it makes the transition to clean energy alternatives.

THE GREEN JOBS PATHWAY – FUELING THE FUTURE

Economic stimulus packages can either entrench the economy of yesterday or transition us to the economy of tomorrow. These are the key things Ontario needs to do to create green jobs, to send less money out of province for oil, and to build a more sustainable transportation system.

Invest in Urban Infill – Fewer and Shorter Trips

Urban infill involves building homes, business and public facilities on unused lands within existing urban areas as a way to accommodate growth without contributing to sprawl and traffic congestion. Done properly, it can shorten travel distances and support better public transit.

Urban sprawl costs 40 to 400 percent more than infill development and results in greater automobile use and environmental impacts.³⁰ Infill development can reduce sprawl and fuel use, and new or retrofitted buildings in urban areas can further reduce energy consumption if built to high energy efficiency standards.

It has been estimated that more than 800,000 jobs could be created in the United States through investment in retrofitting and new green construction,³¹ and that more construction jobs are created by smart growth than by sprawl development.³² Smart urban planning has also been shown to stimulate economic development, create more options for employment and increase efficiency.³³

Invest in Transit and Train Freight – Bundling People and Goods

Ontario’s “Metrolinx” plan is a step in the right direction toward integrating land use planning and transportation planning. It recommends a \$50 billion investment in public transit for the Greater Toronto and Hamilton Area over the next 25 years. To put that level of investment into perspective, right now Ontario spends eight times more per year on transportation fuel than what’s being recommended by Metrolinx.



Investing in public transit creates jobs, saves time and money, and reduces our demand for fossil fuels.

Investing in transit makes good business sense. It is estimated that the total societal cost of driving to work is six times greater than that of taking public transit.³⁴ Transport Canada estimates that traffic congestion in urban centres costs Canadians up to \$3.7 billion each year³⁵ and results in wasted fuel that is equivalent to 1.2 to 1.4 million tonnes of greenhouse gases.³⁶ Furthermore, investment in public transit creates jobs during construction and operations, with a multiplier effect of 2 to 2.5 additional jobs.³⁷ Studies in Germany and Great Britain have shown that a shift from passenger vehicles to public transit would create triple the number of jobs than would be lost in the automotive sector.

It’s also time to reverse the trend of moving more and more goods by transport trucks rather than train. A train can move a tonne of freight 169 kilometres on a single litre of fuel. Shipping

goods by heavy truck produces more than double the greenhouse gases than shipping by train.³⁸ Rail transport is not only more fuel efficient, but also more labour intensive than truck transport. A report estimated that 250,000 jobs could be created in the U.S. by a 10-year investment in rail construction and maintenance.³⁹

Invest in Efficient Vehicles – Less Costly Trips

In 2005, nearly seven million vehicles were operating in Ontario. The average fuel efficiency of these vehicles is 10.3 L/100 km.⁴⁰ Europe's fleet averaged 7.8 L/100 km, 24 percent more efficient than Ontario's vehicles.

Israel's Bold Plan

Israel has embarked on a plan to achieve oil independence by 2020 through establishing a nationwide electric car network. Renault-Nissan would manufacture the cars and the California company Better Place would establish a network of 500,000 charging sites and 200 battery exchange stations for travelers on longer trips who don't want to wait to get a charge.⁵⁰ Better Place has also signed contracts with Denmark, Australia, California and Hawaii, and in January 2009 announced a small pilot project with the Ontario Government.⁵¹ Imagine building electric cars in Ontario and powering them with electricity from Ontario wind turbines.

Ontarians travel 211,837 million kilometres in passenger vehicles every year and burn 11,567 million litres of gasoline and 3,456 million litres of diesel in the process.⁴¹ If the fleet was at least as fuel efficient as Europe's, Ontario travelers would burn 2.8 billion litres less gasoline and 829 million litres less diesel, spending about \$4 billion less on fuel and saving about 9 million tonnes of greenhouse gases in the process.⁴²

And that's the tip of the iceberg. With electric and hybrid technology rapidly evolving, the need to burn oil can drop dramatically. Ontario's auto sector could become more competitive by producing next-generation vehicles. The United Nations has stated that:

In the drive toward a greener economy, leading on fuel economy will increasingly help maintain and create jobs in the automotive sector; lagging behind endangers jobs.

In the same report, the UN estimated that 241,000 new jobs could be created in the U.S. if better fuel efficiency standards were adopted.⁴³



If Ontario's fleet were as efficient as Europe's, Ontario would save \$4 billion on oil each year.

Invest in Alternative Fuels – Green Powered Trips

In May 2007, Ontario Premier Dalton McGuinty joined California Governor Arnold Schwarzenegger in saying Ontario would follow California in passing a Low Carbon Fuel Standard (LCFS), an initiative to reduce by 10 percent the “life cycle” carbon content of fuels sold in Ontario by 2020.

“Life cycle” is an important advancement in the battle against global warming. Burning different fuels can lead to the same emissions at the time of driving, but producing that fuel has already led to varying degrees of emissions, depending on the fuel type. Producing tar sands oil, for example, leads to three times the emissions as producing regular oil.

An LCFS measures the life cycle carbon of each type of fuel and establishes reduction targets for fuel sellers to meet. When California started its LCFS initiative, it was hoped that today’s “biofuels” would help meet the target since they were thought to be largely less carbon intensive than regular oil on a life cycle basis, but recent science has challenged this thinking.⁴⁴ So-called “second generation” biofuels that don’t use foodstuffs could be a sound fuel alternative when they are widely available.

But, the approval of Trailbreaker would strike a severe blow against a LCFS in Ontario by locking in the tar sands as Ontario’s only source of oil over the long term. LCFS should still proceed in Ontario, but in order to make it work Trailbreaker needs to be rejected and the scope of LCFS must include non-liquid fuels.

Oil baron T. Boone Pickens has garnered a lot of attention with his proposal to shift the U.S. vehicle fleet over to natural gas.⁴⁵ While it is true that powering a vehicle with natural gas leads to fewer life cycle emissions than powering it with oil, in Ontario, powering vehicles with electricity can be cleaner while creating jobs at home in renewable energy production.

Consider this. Toyota is introducing a plug-in electric hybrid in 2010 with stronger batteries than its existing hybrids that now only charge batteries during use of the car.⁴⁶

Can Ontario afford to put vehicles on its electricity grid? Studies show Ontario’s yet-to-be-tapped wind power potential from offshore Great Lakes sites is equivalent to 75 percent of Ontario’s current electricity consumption. And, Ontario’s onshore wind power potential is an incredible ten times current consumption.⁴⁷

Because wind power is intermittent, electricity storage is the limiting factor and this is where electric vehicles can play a role in helping Ontario realize its wind power potential. By building a “smart grid” that lets electricity flow both ways between the grid and people’s car batteries when they are plugged in, electric cars can be charged when wind is blowing and utilities can buy back electricity when wind is slack.

Smart grid technology is still being developed, but is being pursued by President Barack Obama and is being piloted in Austin, Texas, Boulder, Colorado, and Illinois.⁴⁸

“One of the most important infrastructure projects that we need is a whole new electricity grid. Because if we’re going to be serious about renewable energy, I want to be able to get wind power from North Dakota to population centers like Chicago. We are going to have to have a smart grid if we want to use plug-in hybrids. Then we want to be able to have ordinary consumers sell back the electricity that’s generated from those car batteries, back into the grid. That can create five million new jobs – just in new energy.”
– President Barack Obama

CONCLUSION

Ontario has critical choices to make. Allowing Trailbreaker to be approved would make the province's dependence on the worst kind of oil absolute and, in the process, send a clear signal that it sanctions the environmental destruction and explosion in greenhouse gases from Alberta's tar sands.

Instead, the Government of Ontario must intervene at the National Energy Board to ensure the Trailbreaker proposal is rejected in favour of maintaining access to less damaging sources of oil while pursuing an aggressive green jobs strategy that launches the transition away from fossil fuels.

	Options for Ontario	Green Jobs in Ontario	Green Results
✓✓✓✓	Invest in Urban Infill	Construction jobs. Design jobs.	Fewer vehicle trips as people live closer to work and shopping. Also less energy needed for heating, sewers.
✓✓✓	Invest in Transit and Train Freight	Construction jobs. Railway jobs.	Less pollution from cars and truck as people and goods are shifted to trains and buses.
✓✓	Build More Efficient Vehicles in Ontario	Auto sector jobs.	Less pollution from cars since they go further on less fuel.
✓	Choose Lower Carbon Fuels	Jobs making alternative fuels, including electricity and second-generation biofuels	Can be less "life cycle" pollution from fuels, depending on source. Some options also less polluting locally.
xxx	Trailbreaker – hitch Ontario to the tar sands	None. This option sucks money out of Ontario.	Just the opposite. More greenhouse gas emissions in Alberta wipe out Ontario's gains. Ontario's refineries could be more polluting.

Endnotes

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