



FREE  
REPORT

# GLOBAL WARMING: MADE IN CANADA?

CAUSE



WELCOME TO  
THE  
TAR SANDS

EFFECT



## FIXING OUR TARNISHED REPUTATION



**Ben West**  
Communications  
Coordinator  
& Healthy Communities  
Campaigner,  
Wilderness Committee

We Canadians pride ourselves on being good neighbours. Our national identity is based on the idea that you can travel anywhere in the world with a maple leaf on your backpack and be treated like a friend. What many of us in Canada don't know is that our international reputation is now being tarnished by corporate power and irresponsible government policy.

As awareness spreads in the global community about the need to fight global warming, Canada is increasingly being seen as an obstacle to collective action. At the annual United Nations international climate negotiation summits, Canada has been repeatedly singled out to receive the "Fossil of the Year" award. Representatives of poor nations in the southern hemisphere have actually walked out of the room in disgust on more than one occasion when Canada's delegates have spoken.

It is heartbreaking to see the impacts of global warming, many of which are already being felt around the world, and to know that our government is playing a role in making things worse. These impacts are felt disproportionately by the world's poor in the southern

hemisphere, especially women and children.<sup>1,2</sup>

Why is our government getting in the way of efforts to do something about this terrible reality? The answer is simple: their decisions are about defending oil production from the Canadian tar sands. These massive oil reserves are some of the biggest in the world, and are obviously now a driving force in Canada's international trade agenda and foreign policy. The devastating environmental impacts of the tar sands and other fossil fuel extraction industries in Canada have been downplayed or ignored by both corporations and government. Even if we slow the growth of the tar sands, ultimately the world needs to end its addiction to fossil fuels.

Weaning Canada and the world off of fossil fuel dependence won't be easy. Our society today runs on oil, but big scale change is possible. First of all we need to

shift away from automobile-centred development. That means investing in public transit and passenger rail instead of new highways, and ending the subsidies to the fossil fuel industry. We need to be making strategic investments that will reduce emissions while creating good green jobs.

It's easy to feel overwhelmed by global warming. But the good news is that a grassroots climate justice movement is growing worldwide and Canada can be a part of it. This paper will provide you with an overview of strategic global warming choke points in Canada, and sketch out a vision of how we can make Canada kick the fossil fuel habit. Let's get Canada on the right track by phasing out the tar sands and creating good, locally planned green jobs. Together we can help Canada truly live up to our reputation as being a responsible member of the global community.

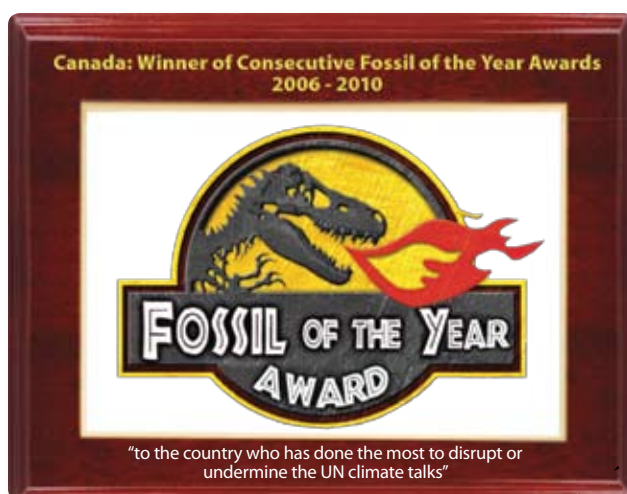


Photo top: **Alberta tar sands** (garthlenz.com). Top left: **Tar Sands "Upgraders", processing raw bitumen in Alberta** (garthlenz.com). Top middle: **Female hiker** (Creative commons). Top right: **Children stand where their homes were abandoned due to rising sea levels. Hemnagar Island, Sundarbans, India** (Greenpeace, Peter Caton). Photo left: **Fossil of the Year award**.

## CLIMATE CHANGE IS HERE NOW

It's not just our grandchildren's problem anymore. The impacts of climate change caused by global warming are here now.

As scientists have long warned, the planet's atmospheric temperatures have increased as the result of greenhouse gas intensive pollution that acts like a heat trapping blanket around the earth. And the planet is warming faster than first predicted; the last decade was the hottest in recorded history. This human-made destabilization of the earth's biosphere is already having horrible consequences.

Melting ice caps and warming temperatures disrupt atmospheric patterns, and are known to be linked to more intense storms such as hurricanes, tornadoes and even heavy snowfalls. Although no single storm is "caused" by climate change, we have seen an increase of extreme weather events around the world as a result of global warming.<sup>4</sup> In the last year alone, flooding and storms drove hundreds of thousands from their homes in China, Pakistan, Australia, North America and elsewhere. Desertification is spreading in Africa, Asia and South America at an alarming rate.

Business as usual is over. This should be a wake up call for us in terms of international responsibility. The impacts of climate change are already here, and they will only get worse if we don't take urgent action.

# STOPPING GLOBAL WARMING AT THE SOURCE



## PIPELINES

There are many existing and proposed pipelines into the United States from the tar sands, including the highly controversial proposed Keystone XL pipeline expansion project. For more information about pipelines visit: [WildernessCommittee.org/pipelines](http://WildernessCommittee.org/pipelines)

## ENBRIDGE 2

The Enbridge Inc. Northern Gateway Pipeline has gotten a lot of attention in the media recently due to the strong opposition of local First Nations people and others living in proximity to this massive proposed pipeline project. If built, this pipeline would cross over 1000 salmon bearing streams and rivers carrying approximately 700,000 barrels of petroleum products a day from just north of Edmonton to Kitimat on the north coast of BC for export in large tankers.

## KINDER MORGAN 3

The existing Kinder Morgan Trans Mountain Pipeline carries approximately 300,000 barrels of oil every day from Alberta to Burnaby, BC. Approximately 50,000 barrels a day were exported through the shallow, narrow and busy Vancouver harbour last year as the result of changes made quietly in 2007 to allow bigger tankers for exporting crude oil. Kinder Morgan has announced their intention of expanding this pipeline by at least another 80,000 barrels a day to increase exports.



## TANKER BAN 4

A ban on tanker traffic on the north coast of BC has been supported by a majority of members of the Canadian House of Commons, and a bill has been brought forward that would make a tanker ban law. This would stop the threat of an oil spill on the north coast, but there would still be the problem of two tankers a week leaving from Vancouver's harbour, plus the proposed increases in the volume of exports. For more info: [WildernessCommittee.org/tankers](http://WildernessCommittee.org/tankers)



Oil tanker passing under Second Narrows Memorial Bridge, Vancouver BC (Paul Colangelo).

## THE TAR SANDS 1

Canada is now home to the largest industrial project in the world. This moonscape of giant open pit mines accompanied by toxic "tailing pond" lakes is a major health concern for the First Nations people whose traditional territory in Alberta is now at the centre of this trillion dollar carcinogenic gold rush. This could be just the tip of the iceberg. So far only a small fraction of the reserves in this area are being extracted! For more information visit [WildernessCommittee.org/tarsands](http://WildernessCommittee.org/tarsands)

## SHALE GAS 5 EXTRACTION

The tar sands are leading to increased demand for natural gas in order to power steam assisted gravity drilling (SAGD) projects. Not only has the world run out of light crude, but we are actually running out of surface level heavy crude in Canada and most of what is left to develop in the tar sands is deep under the surface, requiring non-traditional wells that involve pumping steam underground to melt the bitumen. The natural gas required to facilitate this process is also now increasingly coming from non-traditional sources. A toxic process called hydraulic fracturing or "fracking" is being used to access gas in shale in areas like the Horn River basin in the northeast corner of BC. A tremendous amount of water and energy is required for both fracking and SAGD, leading to contamination of both surface and groundwater and making the overall footprint of every barrel of oil that much larger.

[WildernessCommittee.org/fracking](http://WildernessCommittee.org/fracking)

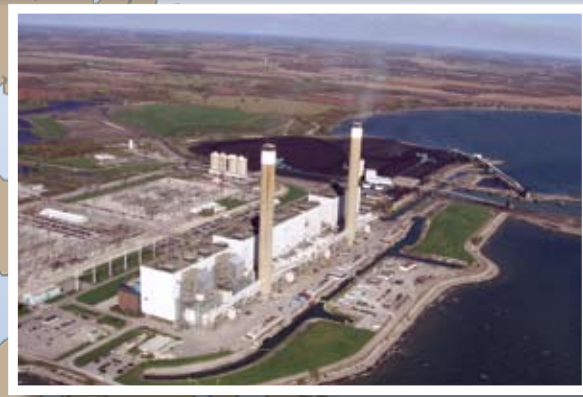
*"The Canadian tar sands is a blight on the moral fabric of this young nation. Indigenous peoples who live in the midst of this massive industrial landscape have seen their human rights trampled upon by Canadian energy policy and, even worse, seen their people sickened by the contamination it produces. The Indigenous Environmental Network will not stop lifting the voices of these communities until action is taken to address this horrible tragedy of industrial genocide taking place in Canada's Boreal forest."*



Clayton Thomas-Muller, Indigenous Environmental Network

## Did you know?

The emissions from burning all the bitumen from the tar sands alone could raise global temperatures by two degrees Celsius. On their own, the tar sands could put the earth beyond a tipping point. Clearly tar sands extraction needs to be phased out and not allowed to continue to grow. This can be done by focusing on strategic choke points like new pipelines and oil tanker traffic.



Nanticoke Power Plant, Ontario (Ontario Power Generation)

## 6 COAL MINES AND COAL FIRED POWER

Canada is a major exporter of coal and several provinces still depend heavily on coal-fired power for energy. Coal is the most greenhouse gas intensive fossil fuel. Coal exports and coal-fired power must be phased out and replaced with alternative energy sources. For more on Canada and coal check out [WildernessCommittee.org/coal](http://WildernessCommittee.org/coal)

## TRANSPORTATION PLANNING

Given the need to transition off of fossil fuels, we need a global shift to smart land use and transportation planning based around light rail and public transit. Unfortunately we are seeing exactly the opposite in Canada. Of the \$35.4 billion spent by all levels of government in Canada on transportation in 2008/09, \$25.1 billion was spent on roads, \$6.2 billion on public transit and \$387 million on rail.



High speed rail in Taiwan (Creative commons - jiadoldo).

If we are going to stop global warming, it will be at the tailpipes and smokestacks where we will need to see real change. In the next 30 or 40 years the vast majority of the existing automobiles and power plants in the world will need to be replaced. The only choice we really have is whether we make a graceful transition or not, because the change away from an oil economy is necessary and will have to happen one way or the other. Canada can either be part of the problem or part of the solution.

## DOING ALTERNATIVE ENERGY RIGHT

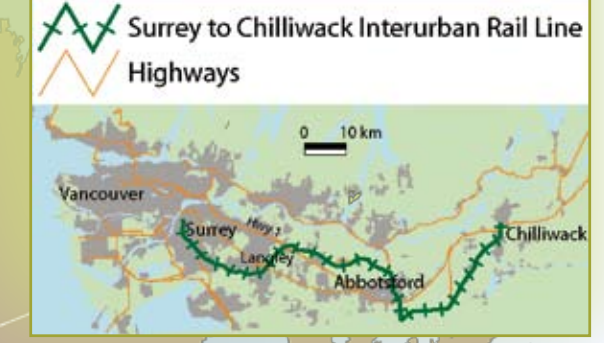
All energy projects have an impact. Nothing is truly clean but everyone needs to switch to energy sources that are safer for our climate. The transition won't be easy; a mix of different energy sources are viable in different locations. Here are a few essential factors in determining locally appropriate technologies. Alternative energy projects should be:

- Regionally planned;
- Built with high environmental standards;
- Acceptable to First Nations and local governments; and,
- Publicly owned.

## 7 RAIL: A 'NOBRAINER' FOR CANADA'S FUTURE

The low hanging fruit of strategic investments to deal with fossil fuel dependence in Canada is passenger rail. The rail corridor from Quebec City across southern Ontario to Detroit, Michigan is ideal to upgrade for high-speed rail. Short flights are the most carbon intensive per km because take off is energy intensive. Therefore, high-speed electric rail along this high traffic corridor is an effective way to get people to reduce their emissions. It's a no-brainer. When surveyed, 90% of Canadians said they support high-speed rail investment! Other local rail corridors in between communities in Canada also provide fantastic opportunities for strategic investment. For example, the interurban line between Surrey and Chilliwack, BC could easily be brought back into use for electric passenger rail service, which would drastically improve the sustainability of the whole region and create much-needed jobs.

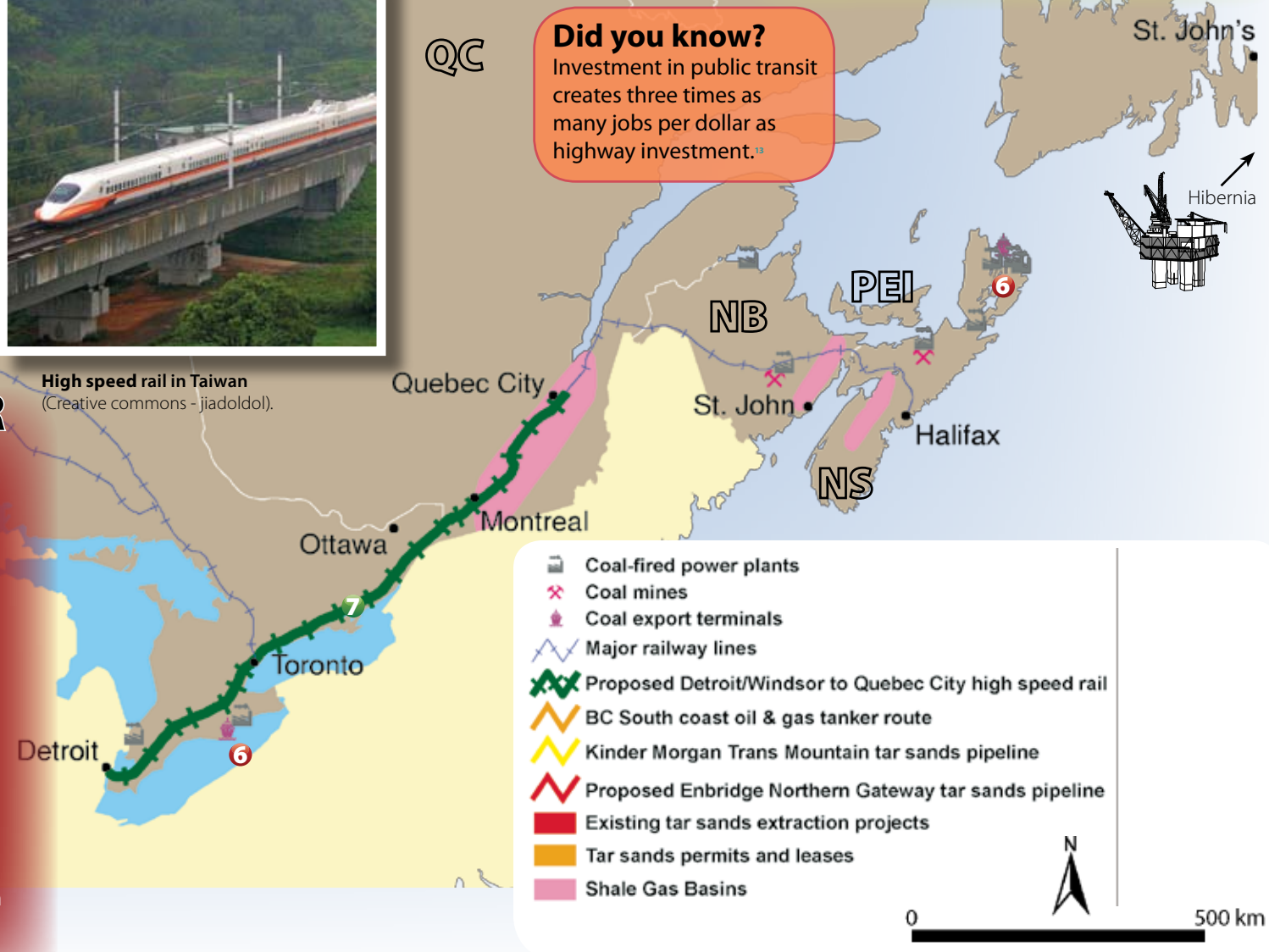
### Case Study: Interurban Rail



**Did you know?** Investment in public transit creates three times as many jobs per dollar as highway investment.

### Case Study: SFPR

The proposed South Fraser Perimeter Road (SFPR) freeway in Delta and Surrey, BC is the quintessential example of a bad highway project that should be stopped. This highly controversial project not only threatens various endangered species, Burns Bog (sometimes called "the lungs of the Lower Mainland" of Metro Vancouver) and hundreds of hectares of prime farmland, but it will also drive land use decisions for decades to come spreading automobile dependence and urban sprawl as the region grows.



- Coal-fired power plants
- Coal mines
- Coal export terminals
- Major railway lines
- Proposed Detroit/Windsor to Quebec City high speed rail
- BC South coast oil & gas tanker route
- Kinder Morgan Trans Mountain tar sands pipeline
- Proposed Enbridge Northern Gateway tar sands pipeline
- Existing tar sands extraction projects
- Tar sands permits and leases
- Shale Gas Basins

# 2 DEGREES CELSIUS

It is critical that we don't let the overall temperature of the planet rise two degrees Celsius above pre-industrial levels. This is seen as the tipping point after which it will be impossible to stop runaway climate change.<sup>16</sup> World leaders have committed to this target but not to the pollution reductions required to get there. According to scientists, preventing a temperature increase of two degrees means reducing atmospheric concentrations of carbon dioxide to below 350 parts per million.<sup>17</sup> Achieving this goal means cutting our dependence on fossil fuels in half in the next 10 years and being free from greenhouse gas pollution based energy by 2050.<sup>18</sup> Getting there won't be easy, so we must start today.



Urban rail is lighter on the climate (Creative commons, VeloBusDriver).

## GETTING CANADA ON THE RIGHT TRACK

It's time to get on the right track. Within Canada, this means planning transition strategies for our cities and the people that work in them. Passenger rail, rapid transit, urban design and green building all play a role in making this a reality. Of course, we also need to replace our coal-fired power plants with locally appropriate alternatives.

But the elephant in the room is the tar sands and its related infrastructure. We need to phase out the extraction of oil from the tar sands if the world is to avoid run away climate change. Being good global citizens means taking our international responsibilities seriously. Let's be part of the solution, not part of the problem. Green jobs for everyone!

For more information: [WildernessCommittee.org/climate](http://WildernessCommittee.org/climate)



2009 Global Day for Climate Action - Almaty, Kazakhstan and Hong Kong, China (350.org).

*The lack of leadership from Canada at the United Nations Climate Change Conference in Copenhagen was appalling. The only thing our government brought to the table was delays and stalling tactics.*

— Tria Donaldson, Wilderness Committee Pacific Coast Campaigner and former UN Climate Conference Youth Delegate



Dinos Against Fossil Fuels (WC Files).

### Fact:

Federal government subsidies and tax breaks to the oil and gas sector in Canada are close to \$1.4 billion annually.



# PLEASE ACT NOW!

Tell the Prime Minister and the Leader of the Opposition you want Canada to do the right thing and be a leader in taking action to stop global warming. Send a message to our elected leaders asking for:

**1** an immediate end to fossil fuel subsidies and a shift from spending money in Canada on new sprawling highway development to public transit and passenger rail,

**2** a ban on expansion of the tar sands and all new fossil fuel export infrastructure including new proposed tar sands oil pipelines,

**3** transition strategies to create good green jobs for Canadians.

▶ **Stephen Harper**  
Prime Minister  
[Harper.S@parl.gc.ca](mailto:Harper.S@parl.gc.ca)

▶ **Micheal Ignatieff**  
Leader of the Official Opposition  
[Ignatieff.M@parl.gc.ca](mailto:Ignatieff.M@parl.gc.ca)

[Climate@WildernessCommittee.org](mailto:Climate@WildernessCommittee.org) • 1-800-661-WILD (9453)

# Yes! I want Canada to get on track to stop global warming!

Enclosed is:  \$25  \$50  \$100  Other \$ \_\_\_\_\_  
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I want to become a member! Enclosed is my annual fee for a:  
 \$52 Family Membership  \$35 Individual Membership

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The Wilderness Committee is Canada's largest membership-based wilderness preservation organization.

## Citations

- <http://www.oxfam.ca/what-we-do/campaigns/stop-harming-start-helping-womens-rights-and-climate-change>
- [http://www.savethechildren.nl/Publicaties/Feeling\\_the\\_Heat\\_Child\\_Survival\\_in\\_a\\_Changing\\_Climate/](http://www.savethechildren.nl/Publicaties/Feeling_the_Heat_Child_Survival_in_a_Changing_Climate/)
- <http://green.blogs.nytimes.com/2010/07/28/state-of-the-climate-hottest-decade-ever/>
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- <http://www.ens-newswire.com/ens/jul2009/2009-07-08-01.asp>
- <http://www.350.org/en/about/science>
- <http://www.timesonline.co.uk/tol/news/environment/article6380709.ece>

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**Wilderness Committee — National Office**  
P.O. Box 2205, Station Terminal  
Vancouver, BC V6B 3W2  
T: 604-683-8220 F: 604-683-8229



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And return to the:  
Wilderness Committee  
P.O. Box 2205, Station  
Terminal  
Vancouver, BC V6B 3W2

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