How to Avoid Action on Climate Change

The fine art of greenwash in Canadian politics

by Ian Angus Editor, Climate and Capitalism

"Federal and provincial governments assume that the right of corporations to profit and grow is sacrosanct. Nothing, not even saving the planet, can be allowed to interfere with the divine rights of capitalism."

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How to Avoid Action on Climate Change

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Ian Angus's keynote speech at "Smells Like Green Spirit," a conference sponsored by the University of British Columbia Student Environment Centre, on January 19, 2008.

Canadians are known for being modest and self-effacing. We don't brag much, and sometimes we seem to have an inferiority complex, a belief that we do okay, but we seldom excel.

Last month, diplomats and politicians and scientists from all over the world met in Bali, in Indonesia, to discuss what to do about climate change. As I followed the Bali discussions, I realized that there is one area in which Canada is truly a world leader. So I decided to devote my talk today to this Canadian success story.

Yes, the world can watch and learn from Canada, because if there is one thing that Canadian politicians and business leaders do well, it is this: They can teach the world how to avoid action on climate change.

This is an important issue for politicians and corporate executives, because they face a big problem.

On one hand, the scientific consensus is overwhelming: global warming is real, and its consequences may be catastrophic. Voters and customers view climate change as a serious problem requiring decisive action, and they might not vote for politicians who don't do anything, and might stop buying from the companies that are causing the problem.

So action seems to be necessary.

But on the other hand, the politicians and corporations have a vested interest in the oil, gas and coal industries. If they aren't directly connected to them then they are connected to companies and industries that depend on oil and gas and coal.

What's more, Canada's political and economic elites sincerely believe that they live in the best of all possible societies. Obviously a social order that made them rich, that put them on top, must be perfect. So it is obviously wrong, perhaps even evil, to take any action that might lead to substantial change in that social order.

The solution is to appear very concerned and thoughtful, while actually doing as little as possible. Done properly, that will reassure voters and customers, without doing anything that might disturb corporate profits. Canadian politicians and business leaders are world-class masters at this.

There are many ways to avoid action on climate change, and I don't

have time to discuss all of them all today. I'll focus on seven that really stand out.

1. Deny That Action Is Necessary

One of the simplest methods of avoiding action is to deny that anything needs to be done, to cast doubt on the legitimacy of the science and warn that doing anything will cause until damage. Just three days ago, at an oil sands industry meeting in Calgary, an Alberta Cabinet Minister gave a keynote speech in which he said that when it comes climate change the "science is still unknown". He said, and I quote, that a "government cannot be too dogmatic (and take one side) when the debate (on global warming) is still out".

He was just the latest in a long line of Conservative politicians to take that stance.

Before he became Prime Minister, Stephen Harper was completely devoted to this approach. In 2002, when he was head of the Canadian Alliance, he wrote a fundraising letter, seeking support for a very important project. He wrote:

"We're gearing up for ... our campaign to block the job-killing, economy-destroying Kyoto Accord....

"It's based on tentative and contradictory scientific evidence about climate trends....

"Implementing Kyoto will cripple the oil and gas industry...

"Kyoto is essentially a socialist scheme to suck money out of wealth-producing nations."

Harper wasn't alone. In that same year, John Baird was a featured speaker at a special dinner for Conservative MLAs in Ontario, paid for by a group called the "Canadian Coalition for Responsible Environmental Solutions," an anti-Kyoto lobbying group funded by the oil and coal industries.

Since then, the Canadian Alliance and the Progressive Conservatives merged to create the Conservative Party. They won an election. Stephen Harper became Prime Minister. And who did he appoint as Environment Minister at the beginning of last year? Why John Baird of course!

That decision, led to what I consider to be the least believable newspaper headline of 2007. It was in the *National Post* on January 5: "Harper Goes Green." Of course Harper isn't even pale Green. But that appointment, and that headline, were signals that he had decided to change to a different do-nothing strategy. Instead of denying that action is needed, he switched to

2. All Talk and No Action

To be fair, Harper didn't invent this approach. The real masters of Talk Without Action were his predecessors in government, the Liberal Party under Jean Chretien and Paul Martin.

Between 1990 and 2005, there truly was a lot of talking about reducing greenhouse gas emissions. During that time, Canadian governments announced five major plans to deal with climate change — the Green Plan in 1990; the National Action Program in 1995; the Action Plan in 2000; the Climate Change Plan for Canada in 2002; and Project Green in 2005.

Even more important, during the same period Canada signed and ratified the Kyoto Protocol promising to reduce greenhouse gases to six per cent below the 1990 level by 2012.

So the talk was pretty good. But we know what really happened.

By 2005 Canadian GHG emissions were 27 per cent above the 1990 level, one of the worst records of pollution growth in the industrialized world. All talk, no action.

One of the best talkers was Stephane Dion. Today he is Leader of the Opposition, but in 2005 he was Minister of the Environment under Paul Martin. In November of that year he gave a rousing speech at a United Nations conference on Climate Change held in Montreal.

"We know that climate change is the single most important environmental issue facing the world today. ... The broad-based consensus is that more action is required now."

No one at that meeting seems to have asked him how that statement jibed with something else he said six months earlier, about development of the Tar Sands.

"There is no minister of the environment on earth who can stop this from going forward, because there is too much monev in it."

The Alberta Tar Sands project is the largest single reason why Canada's greenhouse gas emissions have risen drastically since this country signed the Kyoto Accord. But there is "too much money it," so Dion let it go ahead.

So much for "the single most important environmental issue facing the world today."

3. Shift the Blame

In parallel with the All Talk and No Action strategy, Canadian governments are masters at Shifting the Blame.

They don't do anything about climate change because ... they can't!

They invested millions of dollars in advertising that says the only solution is voluntary action by individual Canadian consumers. If only we would drive less, change our light bulbs, and wear sweaters in the winter, global warming would go away.

That's right – global warming is your fault!

Let me be very clear. It is a good idea to try to organize your life ecologically, to recycle, minimize your carbon footprint, and so on. But global warming is an immense problem and the impact of such individual actions is negligible.

How can we truly live "carbon neutral" lives when the society we live in is grossly, profoundly carbon-intensive? For example, how can people be expected to stop driving cars when public transportation is hopelessly inadequate, when cities are designed so that people must live far from their jobs and schools?

Personal action is important – but focusing on personal action as the primary issue lets the real culprits off the hook, and diverts precious activist energy away from challenging the system that is destroying our planet.

4. Lower the Bar

Another very effective way to avoid doing anything about Climate Change is to lower the bar, to change or reduce the targets so that you can claim victory even if you don't do anything.

The current federal government is particularly good at this. What's more, they have figured out ways to hide the fact that the bar is lower.

International experts say that rich countries like Canada need to reduce Greenhouse Gas Emissions by 25 to 40 percent below the 1990 level, by the year 2020. Some experts think we need to cut them farther and faster.

Harper and Blair brag that their plan will reduce emissions by 20% by 2020. On the face of it, that's below the low end of the international recommendations. But that doesn't tell the whole story.

What Harper and Baird mean is 20% below 2006 levels – not below 1990. Since Canada's 2006 levels were about 30% over 1990. even if the Tory plan works Canada's emissions will still be above 1990.

But at least they are trying, right? Surely it's unfair to include this as a means of avoiding action? On the contrary.

The Tyndall Institute, a highly-respected British organization that studies climate issues, did a detailed study of the Harper-Baird climate change plan. They concluded:

"The proposed slowing in emissions growth is in line with or

less than what is expected in the absence of these government requirements and in some instances less than what has already been voluntarily committed to by industry."

In other words, emissions would be the same, or maybe even lower, if the Harper-Baird plan didn't exist at all!

5. Focus on 'Intensity'

The Harper-Baird plan achieves that dubious result, because it incorporates another clever bit of sleight of hand.

The plan currently being implemented by the federal government doesn't aim to cut emissions. Instead it sets objectives for emissions intensity.

When ordinary people talk about reducing greenhouse gas emissions, they mean that total emissions tomorrow should be lower than today, that next year they should be lower than this year.

But Harper and Baird, like their Liberal predecessors in government, mean something quite different. What they are talking about is using fossil fuels more efficiently.

The goal is to reduce the amount of greenhouse gas produced for each unit of production – each barrel of oil, or each megawatt of electricity. If the amount of oil or electricity that's produced doesn't change, then an efficiency improvement would reduce greenhouse gas emissions.

But – and it is a very big "but" – if production rises faster than the decline in emissions intensity then total emissions will increase under the Harper-Baird plan.

That is not an abstract theoretical possibility – that's exactly what has been happening in Canada. Between 1990 and 2004, Canada's greenhouse gas emissions intensity improved by 14% – but actual emissions increased 27%.

It gets worse. Under the Harper plan, the Tar Sands industry is supposed to improve its emissions intensity by 23% by 2020. But according to industry forecasts, actual production will in quadruple in that same time.

- Result #1: Emissions produced by the tar sands industry can TRI-PLE, and still meet the Harper-Baird targets.
- Result #2: Despite having higher emissions in absolute terms, the industry will be able to sell any credits for any excess improvement in "emissions intensity." The value of those credits – pure profit to the polluters – may be as much as \$700 million.

In short, by focusing on intensity instead of actual emissions, the Harper-Baird plan lets the country's worst polluters keep on wrecking our atmosphere – and it will reward them for doing so!

Now that is a great example of doing nothing to stop climate change!

6. Ignore the Elephant in the Room

Now we come to the single biggest emissions problem in Canada. The problem every politician tries to ignore. The tar sands.

In December, one of the biggest daily newspapers in England, The Independent, ran a front page story that called the Tar Sands oil extraction project "The Biggest Environmental Crime in History." And that is absolutely correct.

Never before has a single project done so much damage, to Canada and to the world.

- Tar Sands operations could eventually cover 149,000 square kilometers, an area the size of Florida.
- Each day the tar sands use 600 million cubic feet of natural gas, enough to heat more than 3 million Canadian homes.
- Producing a barrel of oil from the tar sands produces three times more greenhouse gas than a barrel of conventional oil.
- Tar sands operations use about the same amount of freshwater in a year as the entire City of Calgary and 90% of that freshwater ends up in toxic tailing ponds.
- Toxic tailing ponds already cover more than 50 square kilometers and are considered to be one of largest man-made structures in the world.

The tar sands are Canada's fastest growing source of greenhouse gas emissions. They are the main reason for Canada's appalling emissions record in the past decade. It is impossible to get Canada's greenhouse gas emissions under control and then reduced unless the tar sands are confronted head on.

As the Climate Justice Now Coalition points out, the only really effective way to cut emissions is to leave fossil fuels in the ground. In Canada this means immediately stopping all expansion of tar sands projects – and then shutting existing oprations down quickly.

Any government or political party that actually wants to stop climate change would make stopping this environmental crime a priority

The Tar Sands are the elephant in the room in Canada. The Conservatives, Liberals, and NDP have no policy for stopping or even slowing down the tar sands. The Green Party only calls for a "moratorium" on new projects – a policy that would allow radical increases in emissions, not to mention environmental destruction covering an area the size of Vancouver Island.

Everyone is avoiding action on this one. As Stephane Dion said, "There is just too much money in it."

7. Leave it to the Market

There are many other ways in which Canada has demonstrated its expertise in avoiding action on climate change. For example, Stephen Harper has promised \$1.5 billion in subsidies for biofuels like ethanol, which uses more energy than it produces and drives up the price of food

And then there was what Environment Minister John Baird did in Bali last month, refusing to do anything unless all the other countries act first. That's a grossly immoral position for a country that has the third highest emissions per capita in the OECD and the worst record for emissions growth in the G7 - but Baird didn't care - he's determined to do nothing, and doesn't care how he does it!

But I'd like to finish with the cleverest technique of all, because it really looks as if they are doing something. There are entire books on this one, and debates among economists on how to do it. Rather than do anything, they say, we should leave it to the market.

Just over a year ago a leading economist, Nicholas Stern, reported to the British government on climate change. His report identified the source of the problem. He wrote:

"GHG emissions are an externality; in other words, our emissions affect the lives of others. When people do not pay for the consequences of their actions we have market failure. This is the greatest market failure the world has seen."

"Externality" is a term used by capitalist economists to describe what happens when capitalist corporations don't pay for the damage they cause. Pollution is the perfect example – individual corporations pollute, but society as a whole bears the cost.

So what should we do about that? Some naïve people might say that we should stop relying on markets. But not Nicholas Stern, and not most policy makers. On the contrary, their solution to market failure is: create more markets!

This takes various forms, but the most widely proposed one is to put a monetary value on the right to pollute. So if a corporation decides it is too expensive to cut greenhouse gas emissions, it can buy pollution credits from some other company that is doing well at that, or it can invest in supposedly green projects in the Third World.

Peter Atherton, a financial analyst with Citigroup Global Markets, studied the European Emissions Trading System, which has been in operation for several years. He concluded that it,

"has done nothing to curb emissions ... is a highly regressive tax falling mostly on poor people ..."

Despite that, it now seems certain that similar plans will be introduced in North America. The BC government is negotiating to set up an emissions trading scheme with the western states.

The Conservatives, Liberals, and NDP are all calling for an emissions trading plan in Canada. And, as a recent editorial in *New Scientist* magazine says,

"Finance houses and traders are licking their lips at the profits they hope to make from trading in carbon offsets, futures, derivatives and much else..."

Emissions trading doesn't work. In fact, it makes things worse, by delaying practical action to reduce emissions by the biggest corporate offenders. But it sounds good, and it will make lots of money for polluters and stock brokers.

Why Are They Avoiding Action?

Any reasonable person who has followed the efforts of capitalists and governments to avoid action on climate change must eventually ask "why?" The earth is heating up. Our climate is going crazy. Everyone on earth will be affected. So why don't the people in power do something? Don't they understand that this is a crisis?

The American writer Upton Sinclair once said, "It is difficult to get a man to understand something when his salary depends upon his not understanding it."

And that is the case with our politicians and business leaders.

They are the guardians of the existing economic, social and political system, a system that cannot function without growth, no matter how damaging it is. A system whose only measure of growth is how much is being sold every day, every week, every year. Those sales include thousands upon thousands of products that are directly harmful to humans and nature. They include commodities that cannot be produced without spreading disease, destroying the forests that produce 100% of the oxygen we breathe, poisoning our water and our air. That doesn't matter – it is all growth.

It is a system that cannot sacrifice short-term private profit for longterm social good, because a corporation that is less profitable than its competitors will go out of business.

That creates constant and irresistible pressure to cut costs – and for

centuries that has meant using the environment as a free source of resources and as a free sewer.

The system is called by various names, but I prefer the simplest and clearest one: Capitalism. A system in which capital rules, in which the needs of capital are paramount – a system in which nature, which includes humanity, pays the price.

Waste and pollution are not accidental side-effects of capitalism. Ecological destruction is built into the system's DNA.

Calling global warming the result of "market failure" misses the fact that it is a direct and inevitable result of the way capitalism works. A few years ago the World Resources Institute studied how resources are used in the industrialized countries. They found that between one-half and three quarters of the resource inputs used by industrial economies are returned to the environment as waste, within twelve months.

Look at the tar sands, where 90% of the freshwater used as input is excreted as poisonous waste. That's what capitalism does with natural resources – it trashes them, turns them into landfill and pollution and greenhouse gases.

And that is why politicians and business leaders who are committed to maintaining capitalism are also committed to avoiding action on climate change.

If we had a government that actually cared about the environment instead of capital, that actually wanted to help stop global warming instead of protecting profits, it would unilaterally adopt the IPCC's recommendations for emissions targets, and make meeting those targets a top priority.

It would legislate rapid reductions in Greenhouse Gas emissions, with heavy penalties for failure to comply. These would be absolute reductions, not phony trading schemes, not clever mechanisms for offloading the problem onto the third world.

It would end all subsidies and tax breaks for the fossil fuel industry. It would immediately stop all expansion of operations in the tar sands, and then rapidly close down existing operations.

And it would redirect the billions that are now being spent on wars and debt into public transit, into retrofitting homes and offices for energy efficiency, and into renewable energy projects.

And it wouldn't just reduce emissions in Canada. It would declare that the issue is not just stopping climate change, but winning climate justice.

It would recognize that centuries of plunder and exploitation make rich countries like Canada liable for an immense ecological debt to the third world. Global warming has been created in the Global North, but the principal victims are in the Third world and in indigenous commu-

nities everywhere.

We have a moral responsibility to help clean up the destruction caused by Canadian corporations abroad, and to assist the developing world to shift to clean technology and to adapt to unavoidable change.

Those are just some of the things that a government that actually cared would do. But our government doesn't care, and the opposition parties are no better.

And that's why Canada has such an appalling record of inaction on climate change. That's why Canada won worldwide recognition at Bali last month. At every step, the Canadian delegation fought to ensure that the Bali Action Plan didn't require any action at all.

Since they won't act, it is up to us. It's time to stop letting them speak for us.

Conferences like this one are an important part of a growing movement that also includes marches and rallies, sit-ins and occupations, guerrilla theatre, and much more – all aiming to win mass public support, and mobilize public opposition to the policy of doing nothing.

Since they won't don't want to act, it's up to us to organize, to ensure that they have no choice. It can be done, and it must be done – it's up to us to make it happen.

In short, it's time to stop the climate vandals, because our planet is much more important than their profits.

Ottawa's Fraudulent Global Warming Plan

(Canadian Dimension, September/October 2007)

Canada's federal government is fiddling while the world burns. The Tories' "Action Plan" to deal with climate change, announced by Environment Minister John Baird on April 26, is actually a recipe for inaction and delay.

Immediate Action Needed

This year, the Intergovernmental Panel on Climate Change issued three major reports that summarize the current state of scientific knowledge about climate change. From those reports, we know that:

- The world is getting warmer at an unprecedented rate. It is now 1° Celsius above the pre-industrial level. If it increases to more than 2° above, dangerous changes will become very likely.
- The primary cause of global warming is greenhouse-gas emis-

sions, mostly produced by burning oil and coal.

- The principal sources of greenhouse gases are industries in the imperialist "global north," but the principal victims of global warming will be the countries and peoples of the "global south," where floods, famine and chaotic weather changes will hit hardest.
- To some degree global warming is irreversible, because greenhouse gases remain in the atmosphere for centuries. So, the goal must be to reduce current emission levels substantially, to prevent the accumulation from reaching catastrophic levels.
- To keep the global temperature increase under 2°, the worldwide growth of greenhouse-gas emissions must be stopped and reversed by 2015. The technologies to do so exist today.

Contrary to claims made by conservative critics, IPCC reports are far from "alarmist"; the Panel's conclusions are a conservative, lowestcommon-denominator summary of peer-reviewed scientific research.

That makes the IPCC's forecasts all the more frightening; the horrors they describe are far from the worst that could happen. Every delay in reducing emissions will increase the cost of later action, and increase the possibility of catastrophic climate change: this is a crisis that demands rapid and decisive action.

Trashing Kyoto

Canada signed the Kyoto Protocol in 1998 and ratified it in 2002, promising to reduce greenhouse gases to six per cent below the 1990 level by 2012. Despite that, by 2005 Canadian GHG emissions were 27 per cent above the 1990 level, one of the worst records of pollution growth in the industrialized world.

That growth occurred despite repeated announcements of federal plans to reduce emissions: the Green Plan in 1990; the National Action Program in 1995; the Action Plan in 2000; the Climate Change Plan for Canada in 2002; and Project Green in 2005. In fact, a recent C.D. Howe Institute report points out that

"emissions actually rose faster during the period of policy initiatives, from 1990 to 2006, than during the previous decade, from 1980 to 1990, even though this earlier period had no GHG reduction policies."

Successive Liberal governments responded to global warming in typical Liberal fashion: they promised action, but did nothing that might upset their Bay Street masters. The Conservative government of Stephen Harper, elected in January 2006, was different only in that they didn't even pretend to care.

Before Harper he became Tory leader, he condemned the Kyoto Protocol as a "socialist scheme." And the Conservative Party, which receives strong support from corporations in the oil, gas and coal industries, did not want to alienate those supporters by legislating limits to greenhouse gases.

So, it's scarcely surprising that when it took office the government quickly announced that the Kyoto target of reducing emissions to six per cent below 1990 levels by 2012 was hopelessly unrealistic — and that one of its first actions was to cancel fifteen existing environmental programs.

What a Difference a Year Makes!

Accumulating scientific evidence and concrete experience with shifting weather patterns broke through the media blackout, promoting widespread public discussion and pushing global warming to the top of the polls as a voter concern. A survey conducted for BBC World found that 33 per cent of Canadians are "very concerned" about the effects of climate change, and another 43 per cent are "somewhat concerned."

The three opposition parties saw the Conservatives' opposition to environmental action as a weakness they could exploit in the lead-up to the next election. The Kyoto Protocol was the Opposition's chosen issue. They joined forces to push through a bill in support of Kyoto.

This put the Tories on the defensive, needing to please their traditional supporters in energy and resource sector corporations, while at the same time to appear green enough to win votes from an electorate that is increasingly concerned by climate inaction.

Accordingly, global warming was moved to the top of the Tory Party public-relations agenda. In January, attack dog John Baird took over the Environment portfolio from the ineffective Rona Ambrose, and he lost no time in declaring Kyoto a threat to Canadian prosperity. His argument, codified in a formal report in April, was that implementing Kyoto "would plunge the Canadian economy into recession and dramatically lower the living standards of workers and families." Unemployment would rise to 25 per cent. Prices would soar, they said: electricity up fifty per cent; gasoline up sixty per cent; natural gas up 100 per cent. The real disposable income of a family of four would fall by \$4,000.

Of course, this was pure demagogy; the Tories would normally have no compunctions about cutting living standards for working people. Their real concern is for corporate profits; money that is spent on reducing emissions doesn't go into shareholders' pockets.

The government has not revealed the calculations that led to these

dire conclusions, but the report clearly made very negative assumptions about costs. In particular, it assumed immediate imposition of a tax of \$195 per tonne on greenhouse-gas emissions, vastly more than any pro-Kyoto expert has suggested would be needed. Then it assumed that all other taxes would be reduced to make the tax "revenue neutral"

The government never considered that emission tax revenue might be used to promote conservation by expanding public transit, or by retrofitting homes for energy efficiency, or by retooling the auto industry to build more efficient vehicles.

And there is no suggestion in the Tory plan that the government could stop pouring billions into the occupation of Afghanistan, and use the money instead to replace coal-fired electrical plants with non-polluting technology.

Regulating "Intensity"

Harper and Baird would undoubtedly prefer to just criticize Kyoto and do nothing more, but Baird's predictions of Kyoto-induced economic disaster had little effect on public opinion. Voters remained strongly in favour of action to reduce GHG emissions.

So, a few weeks later, the Conservative government unveiled its own "Clean Air Regulatory Agenda," that (like the ineffective Liberal plans that preceded it) focuses on reducing "emissions intensity," which Al Gore has described as "a poll-tested phrase developed by think tanks financed by Exxon Mobil and other large polluters." The idea, popularized by George W. Bush in his 2002 election campaign, is to reduce the amount of greenhouse gas produced per unit of production. As virtually every analyst has pointed out, reducing intensity is not the same as reducing emissions; if production goes up faster than emissions intensity goes down, then total emissions will increase.

That's not just a hypothetical possibility. Between 1990 and 2004, Canada's emissions intensity improved fourteen per cent, but total emissions rose 27 per cent! And the Pembina Institute points out that the Harper plan gives the Alberta Tar Sands a carte blanche to pollute:

"a sector such as oil sands, where production is skyrocketing, will be able to meet its target while dramatically increasing its actual emissions. According to the [government's] Technical Briefing, the oil sands sector will have to reduce its emissions intensity by 23 percent overall between 2006 and 2020. But according to the industry's own projections, production will approximately quadruple during that period. The net result will be an approximate tripling of actual emissions in the sector."

Loopholes and Exemptions

If that weren't enough to condemn his proposals as a hoax, environment minister Baird's "Action Plan" features enough loopholes to ensure that the polluters won't have to do anything at all:

- They'll get credits for "business as usual" intensity reductions they made between 1992 and 2006.
- They can buy partial exemption from emissions-reduction-requirements by paying \$15 per tonne into a climate-change technology fund. That's a great deal for the polluters since it is less than half of the estimated cost of carbon capture and storage, the principal technology option for emission reductions in the Tar Sands.
- They can buy "emissions credits" from other Canadian companies, and possibly internationally.
- They can invest in projects that purportedly reduce emissions elsewhere in Canada or the Third World.

There is nothing in the plan that would stop corporations from closing down or moving high-emission production to other countries, and no suggestion that they should be required to reduce emissions that are produced by factories they have already moved to the Third World directly or by outsourcing.

"Unintentional fugitive emissions," which comprise close to 25 per cent of the emissions produced by the oil-and-gas industry, are to be exempted from the Tories' proposed regulations. Canadian facilities that began production in 2004 or later will be exempted for three years.

Facilities will be exempted entirely if they can show that there is no available technology to reduce their emissions — which will include the cement industry, which accounts for fourteen per cent of emissions produced by large manufacturers in Canada.

To complete the picture, while details are limited, it appears that the Tory plan depends on self-reporting by the biggest polluters. They'll report their 2006 emissions this year to set a baseline, and then report their intensity results starting in 2010. The foxes will be in charge of the henhouse, and the opportunities for fraud will be unlimited.

What's more, the government won't even implement its proposed regulations this year. First they have to consult with stakeholders — meaning the lobbyists for big polluters. Then draft regulations for greenhouse gases will be published in the spring of 2008, and the actual emission intensity targets won't come into force until 2010. Vehicle fuel efficiency standards won't be imposed until 2011.

A Complete and Total Fraud

John Baird has refused to release the figures his plan is based upon, but he claims that under the Tory plan, absolute emission levels will begin to decline "as early as 2010 and no later than 2012," and that by 2020 emissions will be twenty per cent below the 2006 level.

Not even conservatives believe him. Professor Mark Jaccard, of Simon Fraser University's School of Resource and Environmental Management, was recently described by Baird as one of "Canada's best economists outside of governments" and by his parliamentary secretary as a "well-respected expert on environmental issues."

He was commissioned by the right-wing C.D. Howe Institute to conduct an in-depth analysis of the Harper-Baird plan. Even though it makes improbably optimistic assumptions about the government's continuing commitment to GHG reductions, his report (co-authored by Nic Rivers) concludes that the Conservative plan will result in overall emissions in 2020 being higher than they are today.

Jaccard was supposed to appear before the House of Commons Environment Committee on June 14. Rather than let that happen, the committee's chair, Conservative Bob Mills, resigned from his position, and no other Conservative would agree to replace him, so the committee could not meet and Jaccard couldn't testify.

Bear in mind that the Tories' promised GHG figures for 2020 were much higher than they are supposed to be under Kyoto in 2012, and vastly higher than the targets that climate scientists say are necessary to head off the worst effects of global warming. The fact that even his inadequate targets won't be met fully justifies Al Gore's description of the Tory plan as a "complete and total fraud" that is "designed to mislead the Canadian people."

The Tory Plan is so bad that British environmentalist George Monbiot says that Harper has joined President George W. Bush and Australian Prime Minister John Howard in a new climate change "axis of evil"

A Choice for Humanity

The federal government's plan puts "our" economy ahead of lives of the millions who will suffer and die if global warming continues. It assumes that the right of corporations to profit and grow is sacrosanct. Nothing, not even saving the planet, can be allowed to interfere with the divine rights of capitalism.

But it isn't "our" economy — it's theirs. Their system is fouling things up so badly that much of the earth could become uninhabitable. It must be replaced by a society that puts people before profits. The choice is between ecosocialism and barbarism — and it's a choice that humanity must make soon.

The Tory plan is a fraud. But the fact that the Canadian government felt required to produce any plan proves that there is growing support for action to cut greenhouse-gas emissions. To stop the capitalist threat to our planet, we must build that sentiment into a movement.

Further Reading

- C.D. Howe Institute. Estimating the Effect of the Canadian Government's 2006-2007 Greenhouse Gas Policies. www.cdhowe.org/pdf/ebrief 46.pdf
- Environment Canada Regulatory Framework for Air Emissions. www.ec.gc. ca/doc/media/m_124/toc_eng.htm
- Intergovernmental Panel on Climate Change. Reports by Working Groups I, II, and III. www.ipcc.ch
- The Pembina Institute. Analysis of the Government of Canada's April 2007 Greenhouse Gas Policy Announcement. climate.pembina.org/pub/1464

The 'Emissions Intensity' Hoax

(Climate and Capitalism, March 20, 2007)

As I've written previously, the Climate Change Denial Industry is still active despite the IPCC Report — but it's also true that it has become unfashionable as an explicit political stance, at least in Canada. After years of inaction, politicians of every stripe are actively seeking to outdo each other in pledges to fight global warming.

For Conservative Party politicians, the preferred approach is restrictions on "emissions intensity." The idea is to encourage industry to invest in R&D that will reduce the greenhouse gas (GHG) emissions per unit of output. This will make Canada a leader in "green technology" that "we" (ie, the corporations that back the Conservative Party) can sell worldwide. Canadian capitalism will do well by doing good.

First out of the gate was the Conservative government of Alberta, the province whose industries generate 31% of Canada's GHG emissions, despite having a population and GDP share just over 10%

On March 8, Alberta Premier Ed Stelmach announced a bill to require about 100 large facilities, which together produce about 70% of the province's emissions, to cut their emissions intensity by 12% this year. That sounds tougher than it really is, since the plan allows companies that don't meet the goal to instead pay \$15 per excess tonne into a government technology fund, or to invest in an "Alberta-based offset."

Federal Prime Minister Stephen Harper (also a Conservative) stood beside Stelmach when the "Specified Gas Emitters Regulation" was announced, endorsing the Alberta approach. "All Canadians are looking for a balance between economic growth and environmental protection," Harper told reporters. "Finding that balance is the fundamental challenge of our time."

Harper is expected to announce his own emissions intensity program next month. "We'll treat all regions and sectors equitably and those will be the minimum standards we will expect in every province in Canada," he said. (Canwest News, March 9, 2007)

It's easy to show that controls on emissions intensity don't necessarily reduce actual emissions. If the oil sands reduce their intensity by 12%, while increasing production by 20%, total emissions will increase

That's simple math — but it isn't just playing with numbers. Way back in 1865, Stanley Jevons noted that a 66% reduction in the coal needed to produce steel had resulted in a 1000% increase in the amount of coal used in the steel industry over 30 years. It was more efficient, so coal was cheaper, so the industry used it to vastly increase production. That observation was generalized in the 20th Century into what economists call the Khazzoom-Brookes Postulate — lower energy costs result in increased energy use.

But we don't have to take our argument from Victorian England or from abstract economic theory. Statistics published this month in a report by the Chief Economist of CIBC World Markets (the investment/ brokerage arm of Canada's fifth largest bank) prove that the processes described by Khazzoom and Brookes have been fully operational in Canada.

In eight of the ten provinces, the Tories' much-vaunted "emissions intensity" improved between 1990 and 2004, while actual emissions got much worse. Canada as a whole increased its emissions by 27% (that's 33% over the Kyoto target) while intensity improved by 14%. The CIBC chart shows the bottom line from 1990 to 2004, and extends it to 2012, by which time Canada's GHG emissions will be 45% over the Kyoto target, despite a 25% improvement in emissions intensity. In the words of the CIBC report:

"To date, Ottawa has emphasized reductions in emission intensity as the focus of its global warming fight, with intensity simply a measure of greenhouse gas emissions per unit of real GDP. Unfortunately, in an expanding economy, intensity targets are an effectively meaningless tool for stabilizing, let

alone reducing, the absolute level of greenhouse gas emissions.

"At current rates of economic growth, achieving the Kyoto emissions target would then require a quantum leap in energy efficiency: annual reductions in intensity that are roughly four times the current trend."

What the report doesn't say is that a 400% percent increase in energy efficiency would reduce production costs for the oil sands and coal-fired power plants and other big emitters. That would allow them to grab more market share and radically jack up production — and increase emissions.

That could be called that the Khazzoom-Brookes Postulate in action — but it's actually the illogical logic of capitalism, in which the growth of individual firms or industries always takes precedence over the needs of society as a whole.

Rewarding the Polluters

(Climate and Capitalism, Dec. 4, 2007)

The story of Ottawa's fraudulent climate change plan just keeps getting worse. A new analysis shows that the Harper-Baird plan will produce windfall profits for the worst greenhouse gas emitters in Canada. The following is adapted from a WWF news release, dated November 27.

The booming tar sands industry may actually profit by up to \$700 million from selling carbon credits while their global warming emissions dramatically increase. An analysis by the UK-based Tyndall Centre for Climate Research, commissioned by WWF, demonstrates this perverse outcome arises because the federal government's proposed greenhouse gas limit for large industrial facilities is set at a level below what is attainable, and in some cases, below what has already been voluntarily committed to by industry.

The Tyndall Centre used published tar sands growth and greenhouse gas mitigation scenarios to assess the impact of the government's proposed intensity-based regulation for Large Final Emitters, a key element of the Harper government's current climate change plan.

Key findings include:

- The government's proposed requirements dampen but don't reduce global warming pollution from the tar sands; emissions will grow between 112 per cent and 219 per cent by 2015.
- The proposed slowing in emissions growth is in line with or less

than what is expected in the absence of these government requirements and in some instances less than what has already been voluntarily committed to by industry.

- The ability for companies to sell extra greenhouse gas reductions as carbon credits under the government's proposed plan means that the windfall profit for tar sands companies could be in the order of \$30 million to \$700 million, according to the report.
- The cost of compliance with the government's proposed requirements is expected to be minimal for tar sands companies, ranging from zero to a maximum eight cents per barrel.

"This is a plan in which it pays to pollute. Handing a cash bonus through carbon credits to the companies responsible for the fastest growing source of global warming pollution in Canada does not make sense for the health of the planet, or for Canada's credibility on the world stage," said Mike Russill, President & CEO of WWF-Canada and former oil industry executive.

"It's time for the federal government to face the fact that intensitybased greenhouse gas reduction is not real reduction, and immediately revise the requirements for large industry to ensure emissions actually go down," said Russill.

Report: http://wwf.ca/resources/pdf/TyndallFinalJointReport.pdf

Carbon Trading Comes to Canada

(Climate and Capitalism, March 18, 2008)

New excitement from the wonderful folks who gave us the subprime mortgage disaster ...

As we all know, markets are the very best way to make this a better world. That's especially true of markets that don't trade actual goods, but symbols of goods, and abstractions of symbols, and derivatives of abstractions of symbols ... The less the market has to do with actual human economic activity, the better.

After all, if we didn't have such markets, we would have missed out on many wonderful experiences. In the past decade alone we've had the dot-com bubble ... the telecom crash ... the sub-prime mortgage crisis ... the collapse of Bear Stearns and Northern Rock.

So of course we should all be delighted with this news:

"The Montréal Climate Exchange (MCeX), a joint venture of the Montréal Exchange (MX) (TSX: MXX) and the Chicago Climate Exchange (CCX), announced today that it plans to

launch trading of futures contracts on Canada carbon dioxide equivalent (CO2e) units on May 30, 2008, subject to regulatory approval.

"MCeX is moving quickly to launch the first exchange-traded carbon futures contract in Canada," said Luc Bertrand, President and CEO of MX and chair of MCeX. "We are enthusiastic about creating this new derivatives market and about the launch of trading."

"The demand for environmental derivatives continues to grow worldwide and the time is right to build a critical mass of trading activity in Canada," said Dr. Richard Sandor, Chairman and Founder of the Chicago Climate Exchange. "MCeX products will meet demand from industrial participants to manage their emissions risks at the lowest cost while also creating continuous incentives for technological innovation that reduce carbon emissions." ... [MCeX News Release, March 14, 2008]

If that doesn't just give you goosebumps all over, maybe you should pay more attention to our beloved federal Cabinet Ministers:

"I am pleased to see that organizations like the Montreal Climate Exchange are moving full steam ahead to set up Canada's first carbon market," said [Environment] Minister Baird. "As the Montreal Climate Exchange noted, our Government's announcement on Monday of the details on our greenhouse gas emissions plan has allowed them to move forward and start trading." ...

"This is a good day for Montreal and for Canada," said [Regional Minister for Montreal] Fortier. "The Montreal Climate Exchange has certainly taken a lead role in Canada towards setting up a carbon market, and I'm pleased to see that they are moving ahead. With tools like carbon trading available in our Turning the Corner plan, it's clear that our Government's actions in fighting climate change are on the right track." [Environment Canada News Release, March 14, 2008]

Yes indeed, carbon trading, including trading in "environmental derivatives" is about to start in the Great White North Multibillionaire Warren Buffet, who cannot possible be accused of sympathy for ecosocialism or anticapitalism of any sort, had this to say about derivatives. six years ago:

"I view derivatives as time bombs, both for the parties that

deal in them and the economic system. ... The derivatives genie is now well out of the bottle, and these instruments will almost certainly multiply in variety and number until some event makes their toxicity clear. Central banks and governments have so far found no effective way to control, or even monitor, the risks posed by these contracts. In my view, derivatives are financial weapons of mass destruction, carrying dangers that, while now latent, are potentially lethal."

The derivatives-driven credit crunch that started with predatory mortgage vultures and is now shaking global banking was the very toxicity event that Buffet predicted. And now the federal Conservatives and Quebec Liberals are letting similar vultures loose on our atmosphere. Stand back, this could be nasty.

Carbon Storage: A Silver Bullet for Emissions?

(Climate and Capitalism, March 15, 2008)

This week, Canada's federal government revealed new details about its supposed plan for reducing greenhouse gas emissions.

Last year in Canadian Dimension, I described the plan as "a complete and total fraud" and "a recipe for inaction and delay." The latest announcement amply confirms that judgment.

Energy Minister John Baird has revealed new details, but the plan still aims to reduce "emissions-intensity," while allowing actual emissions to increase — tar sands operators will be able to triple their emissions with no penalty. It still includes loopholes and exemptions that are big enough to drive a tar sands loader through. It still allows big emitters to buy their way out of doing anything at all.

Betting on CCS, Sort Of

The one new thing in this announcement is a claim that the very worst polluters in Canada — power plants and tar sands operations — will be required to implement Carbon Capture and Storage (CCS). They'll have to install equipment that captures CO2 and other greenhouse gases, and then they'll have to pump the gas underground, where it will remain forever.

Like the rest of the plan, this sounds good until you examine the details. Most notably:

- The CCS requirement only applies to plants and tar sands operations that begin operations in 2012 and later. Existing facilities, and those completed in the next three years, are exempt.
- The CCS requirement actually "a cleaner fuel Standard based on carbon capture and storage technology" won't actually apply until 2018.
- Most companies exempt, and a 10-year delay on regulations. That's what the Harper government means by "Getting Tough on Industry's Emissions."

Will It Work?

The Harper-Baird cabal (like the carbon tax advocates in B.C.) present CCS as a silver bullet, a new technology that will magically solve a problem that they'd really rather ignore.

But getting magic to work in the real world can be difficult. Just two months ago, a major report to the Minister from the pro-business and pro-CCS National Roundtable on the Environment and the Economy said:

"Technologies such as CCS are largely untested on a massive scale ... While small-scale CCS has been proven, the scalability of these small initiatives is untested."

Let's be more explicit: only a handful of working Carbon Capture facilities exist, in the entire world. All are very small. Not one could handle the CO2 from the smallest coal-fired power plant in Canada or anywhere else. No one knows when or if the technology will work on a large scale, or how much CO2 a large-scale operation would actually capture.

And no one knows what it will cost. The Integrated CO2 Network (ICO2N), a very pro-CCS coalition of big Canadian energy companies, says "capture costs are significant and present an economic challenge." That's a critical issue, because under capitalism CCS will not be deployed — it won't even be developed — unless there are substantial profits to be made.

Is It Safe?

But even if carbon capture works and is cost-effective, there are significant questions about the long-term reliability and safety of underground geologic storage. The Union of Concerned Scientists warns:

"While the potential environmental consequences and risks to public safety are generally acknowledged but frequently dismissed as minor, these environmental concerns are insufficiently studied through systematic research to date. These risks include:

- "Direct risks to humans
- the potential for environmental risks to humans, such as catastrophic venting of CO2, i.e., the rapid re-release of stored gas in toxic concentrations from underground storage sites;
- the potential for potable aquifer contamination; and
- the possible risk of induced seismicity (earthquakes) due to underground movement of displaced fluids.
- "Environmental risks
- the yet-unknown permanence of underground carbon storage, i.e., the re-release of carbon dioxide, thus delaying, but ultimately not solving the emission problem; given the energy penalty associated with carbon separation, if stored carbon is re-released to the atmosphere over time scales of years or decades, atmospheric carbon dioxide concentrations will increase;
- continued (and possibly increased) reliance on fossil fuels with the associated adverse environmental consequences at fossil-fuel extraction sites, particularly in ecologically sensitive areas:
- adverse environmental impacts associated with extensive expansion of pipeline facilities necessary for the transfer of CO2 to deposition sites if implemented on a large scale; and
- unknown impacts on the biological communities that live in deep saline formations and other storage sites."

In the words of the International Energy Agency:

"Unless it can be proven that CO2 can be permanently and safely stored over the long term, the option will be untenable, whatever its additional benefits "

They Don't Care

Harper, Baird and Co. know all this. They don't care.

In politics, a decade is several lifetimes. By putting off the CCS reguirement to 2018, they are offloading the problem onto other politicians and other governments. They are ensuring that the corporations affected will have lots of time to lobby for changes and exemptions and further delays. (The president of the Canadian Association of Petroleum Producers has already said that his group will ask Ottawa for more time.)

When a politician promises to do something in ten years, he is put-

ting it off forever. Where climate change is concerned, that's worse than irresponsible — it's downright criminal.

Carbon Taxes: Nudging the Free Market Fairy

(Canadian Dimension, May-June, 2008)

Hot Air: Meeting Canada's Climate Change Challenge. by Jeffrey Simpson, Mark Jaccard and Nic Rivers. McClelland & Stewart, Toronto, 2007.

The Church of the Free Market Fairy is divided into two denominations.

The fundamentalists believe that the Free Market Fairy will always deliver the best of all possible worlds, so long as we don't let the government interfere.

The moderates believe that the Free Market Fairy isn't entirely perfect — sometimes she needs a gentle governmental nudge in the right direction.

Jeffrey Simpson, Mark Jaccard and Nic Rivers belong to the second group. In *Hot Air: Meeting Canada's Climate Change Challenge*, they show convincingly that if government doesn't act, this country's appalling record on greenhouse gas emissions will get much worse.

"The business-as-usual rate, augmented by accelerated oil sands development, means that if we do nothing or continue with the same mix of failed policies Canada's GHG emissions will climb from more than 800 million tonnes in 2010 to almost 1.4 billion tonnes in 2050."

Much of *Hot Air* is devoted to a history and critique of the emission reduction policies of successive federal governments. Those chapters are essential reading for anyone who wants to understand why and how Canadian politicians have avoided action on climate change for fifteen years.

There is no doubt that Simpson, Jaccard and Rivers sincerely believe that Canada's GHG emissions must be reduced substantially. But they also believe, just as sincerely, that GDP growth is always good, that Canada is inevitably "going to use more energy, not less," and that any policy must avoid "drag on the Canadian economy."

Faced with that contradiction, they can only propose that govern-

ments introduce a gradually rising tax on emissions, thus nudging the Free Market Fairy to produce magical new technology solutions, including emission-free cars, affordable CO2 capture and storage systems that actually work, energy efficient buildings, and more.

That won't be the result of governments investing the emissions tax revenue in R&D or in enforcing lower emissions standards. On the contrary, Hot Air wants a revenue neutral tax, and in any case the authors don't like government spending. Technology will evolve in the right direction because their version of Free Market Theology, embodied in a proprietary economic modelling system run by Jaccard and Rivers, tells us so. According to the model, which produces very pretty graphs, a revenue-neutral emissions tax will cause Canadian consumers and businesses to change their behaviour, reducing Canadian GHG emissions to 50% below the 2010 level by 2050.

Even if it works, that figure is far from the goal many scientists think we should aim for to avoid dangerous climate changes — at least 60% below 1990 levels.

But it's much more likely that the emissions tax will just fizzle. So long as corporations are free to invest as they see fit, any carbon tax that's high enough to be effective will lead to capital flight, not to investment in new technology. Faced with threatened or actual shifting of investment to the U.S. or China, Canadian politicians will inevitably pull back, leaving a tax like the one recently announced in B.C. — ineffective and easily passed on to consumers.

Carbon taxes may be part of an effective anti-emissions policy, but only if they are coupled with broad scale economic planning and a determined effort to shut down the tar sands and other major emitters. Otherwise we'll have the worst of both worlds — the Free Market Fairy will deliver higher emissions and an increasingly regressive tax system that mainly affects those least able to pay.

B.C.'s Carbon Tax: A Regressive Hoax

(Canadian Dimension, May-June, 2008) (published as an Editorial)

H.L. Mencken once wrote, "For every complex problem there is an answer that is clear, simple, and wrong."

British Columbia's recently announced carbon tax is a case in point. It won't reduce greenhouse-gas emissions and it will have no impact on global warming — but it will hurt working people and the poor.

According to carbon-tax advocates, greenhouse gases are growing

because emissions are free: corporations and consumers don't pay when they use the atmosphere as a carbon waste dump. By imposing a price on products that produce CO2 and related gases, a carbon tax will cause consumers and corporations to adopt low-emission products or technology. Presto! Free-market magic works again!

Even the most committed defenders of carbon taxes agree that this kind of tax will only work if two conditions are met: The tax must be high enough to cause buyers to switch to alternatives, and there must be alternatives available at prices buyers can afford.

Neither is true for the B.C. plan.

The budget proposes a tax of \$10 per tonne of emissions this year, rising to \$30 per tonne in 2012. For gasoline, this works out to 2.4 cents per litre this year, rising to 7.2 cents per litre in four years.

By way of comparison, the average retail price of gas in Canada, adjusted for inflation, has risen forty per cent in the past five years. The increase is the equivalent of \$120 per tonne of emissions — four times as much as the maximum tax proposed in B.C.

But consumption did not decline. In fact, during the same period both gasoline sales and greenhouse-gas emissions rose to record levels.

In effect, we've already tried a much tougher carbon tax than B.C. is proposing — and it didn't work. Corporations passed the cost onto customers, and wealthy consumers absorbed higher prices easily. Working people and the poor tightened their belts, spending less on other things.

Why has the demand for petroleum products been so inelastic, so unaffected by price increases? Because, contrary to the carbon-taxers' wishful thinking, the much-vaunted free market did not deliver alternatives. Despite oil prices that have risen farther and faster than any tax advocate proposes, the market has not given us clean energy, or low-emission cars, or cost-effective carbon-capture technology, or universally accessible mass transit, or energy-efficient homes and offices. Cities continue to be designed around roads and single-passenger vehicles.

The main thing that the market has produced in response to rising oil prices is the Tar Sands. Rather than investing in clean energy, corporations are putting billions into the biggest, dirtiest industrial project in the world.

Could the B.C. government use carbon-tax revenues to expand public transit and other alternatives? Perhaps — but what it is actually doing, as recommended by carbon-tax advocates, is cutting other taxes so that the carbon tax will be "revenue neutral." Businesses will do particularly well: not only are their taxes being cut, there are no restrictions on their ability to pass the taxes on to customers.

As a nod to social justice, the plan promises "Climate Action Credits" to offset the carbon taxes paid by low-income people. However, as the National Union of Public and General Employees points out, credit payments will not keep up with annual tax increases; by 2012 lowincome people will pay twice as much in carbon taxes as they receive in credits.

In short, the B.C. carbon tax is regressive, shifting ever more of the province's tax burden onto working people, while reducing taxes on corporations. It will do nothing to cut emissions or slow global warming.

The liberal environmentalists who have endorsed this scheme should hang their heads in shame.

A Memo to John Baird on Carbon Capture and Storage

Climate and Capitalism, April 4, 2008

TO: JOHN BAIRD, Minister of the Environment, Ottawa, Canada Dear Mr. Baird:

You recently announced that your government will impose tough measures "cut our greenhouse gas emissions an absolute 20% by 2020." Central to that promise was a proposed regulation requiring that any electrical plants opened after 2012 be designed to use Carbon Capture and Storage, and that CCS be actually implemented in those plants by 2018.

CCS, as you know, involves "capturing" CO2 emissions at their source, and then "storing" them at least a kilometre underground, where the pressure will keep the gas in liquid form, and where, you hope, they will stay indefinitely. That's the theory — there are no working commercial CCS operations anywhere in the world, only a handful of tiny test sites.

When you made the announcement, I wrote that this was just another attempt to delay action on emissions. Unfortunately, evidence confirming that judgment continues to flow in.

A recent issue of *New Scientist* magazine (March 27, 2008) features an article by Fred Pearce, who surveys up the state of CCS science and technology, and asks the very pertinent question "Can clean coal live up to its promise?" You should read it. According to that article, the UK government is almost as enthusiastic about CCS as you are. The senior minister for industry has predicted that by 2030 up to a third of electricity in Britain could be generated by "clean coal" plants using CCS Pearse comments:

"Unfortunately, few in the energy industry believe these deadlines are remotely achievable. A study by the Massachusetts Institute of Technology called *The Future of Coal*, published last year, suggests that the first commercial CCS plants won't be on stream until 2030 at the earliest.

"Thomas Kuhn of the Edison Electric Institute, which represents most US power generators, half of whose fuel is coal, takes a similar line. In September, he told a House Select Committee that commercial deployment of CCS for emissions from large coal-burning power stations will require 25 years of R&D and cost about \$20 billion.

"The energy company Shell, though enthusiastic about the technology, doesn't foresee CCS being in widespread use until 2050."

Pearce also discusses the problem of safety and longevity — will the CO2 actually stay in the ground? A scientist familiar with a CCS test site in Norway says that it hasn't leaked, but she admits it may not be typical.

"So far, tests have been small-scale, short-term and largely at sites that geologists judge will perform best. In the real world, Hovorka points out, geologists will be under pressure to find burial sites close to power plants, where the rock formations may be less than perfect. She also admits there is no method yet for deciding how much CO2 a particular rock formation can absorb before leaking, and how to spot if things are going wrong."

Even if it works – CCS will not capture all the CO2 generated by a power plant, and it will actually create emissions of its own.

"Yet even the best CCS systems will not capture all the CO2, and existing methods typically capture only about 85 per cent. In reality the figures are even more unfavourable, as the CCS process itself consumes anything from 10 to 40 per cent of the energy produced by a fossil-fuel power station.

"Another factor to be taken into account is the energy used

by diggers, trucks and trains to extract coal and transport it to the power station. In all, this may take up to a guarter of the energy the coal produces at the power plant ..."

The most detailed assessment of this problem published to date concludes that CCS would reduce GHG emissions from coal-fired power stations by two-thirds – at best!

But of course you know all this. There are many very knowledgeable, very intelligent people in your department, and I'm sure they have told you the truth about CCS: it won't do the job, no one knows if it is safe, and it won't arrive in time. You have been told that, and yet you chose to tell the public that CCS is the silver bullet needed to stop Canada from continuing as one of the worst GHG emitters in the world.

Given that, Mr. Baird, why should we believe that you really want to cut greenhouse gas emissions and deal effectively with global warming? Why shouldn't we draw the obvious conclusion that your "Turning the Corner" plan is just more greenwash, that it simply continues the long-time Conservative and Liberal policy of avoiding action on climate change?

> Yours truly, Ian Angus, Editor Climate and Capitalism

Climate and Capitalism

Climate and Capitalism is an online journal focusing on ecology, climate change, and the ecosocialist alternative to capitalism and environmental destruction. It has three goals:

- To provide news and analsis to inform, educate and develop the green left around the world;
- To build an international movement against capitalist destruction of the environment and for ecosocialism;
- To encourage and facilitate collaboration and exhanges of views among socialists and ecology activists.

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