

Fuelling the Climate Crisis

THE CONTINENTAL ENERGY PLAN

There is a dangerous contradiction in the way Canada is developing its energy future.

Canada is rushing to expand oil and gas production to feed the voracious American appetite for fossil fuels. By doing so, we are dramatically boosting our greenhouse gas emissions, especially from the proposed expansion of Alberta's tar sands. The environmental implications are enormous. *Fuelling the Climate Crisis* shows the growth in fossil fuel production will raise Canada's greenhouse gas emissions 44 per cent above the commitment in the Kyoto Protocol.

The federal government continues to claim that Canada can substantially increase oil and gas production while honouring its international commitment to reduce greenhouse gas emissions. But Canada's annual emissions are already 20 per cent above the targets set out in the Kyoto Protocol, which requires our emissions to be six per cent below 1990 levels by 2012.

In the past year, fuel prices have risen substantially and controversial energy projects, including coal-fired power plants, tar sands operations and natural gas production and processing facilities are being proposed and built in Canada to take advantage of the business opportunities arising from high prices. What is missing is an energy policy that takes the climate into account. Rising prices for energy and the calls for new energy supply cannot be separated from the need to reduce air pollution and global warming through conservation and a shift to renewable energy sources.

Three years after signing the 1997 Kyoto Protocol, the federal government has no specific strategy to reduce emissions. At the same time, Ottawa continues to support the oil and gas industry – with \$40 billion in subsidies since 1970 – rather than encourage and reward investments in energy efficiency and renewable energy.



Tod Korol photo

Energy and climate change

Oil, coal and gas play a major role in our economy and our lives. These fossil fuels heat our homes, power our cars and produce much of our electricity. But these fuels are also major contributors to global climate change – one of the greatest environmental threats facing the planet.

A layer of heat-trapping gases such as carbon dioxide, methane and nitrous oxide surrounds the earth and produces a natural greenhouse effect. These gases keep the earth warm enough to sustain life.

But the growing use of fossil fuels is dramatically increasing the atmospheric concentration of these gases. This is increasing the natural greenhouse effect and the result is climate change.

Since the Industrial Revolution, atmospheric concentrations of carbon dioxide – the most significant greenhouse gas – have mushroomed from 276 parts per million to 368 parts per million – levels far higher than at any time during the last 420,000 years.

By 2050, carbon dioxide concentrations will climb to 560 parts per million if global emissions continue along the same trend line – a level that will produce severe changes to the earth's climate. As a first step in addressing this, Canada signed the Kyoto Protocol in 1997 and agreed to reduce its greenhouse gas emissions to six per cent below 1990 levels by 2012. But unless policy moves in a new direction, we can only expect the situation to get worse. Scientific analysis demonstrates that reductions in the range of 60 to 80 per cent are required to stabilize the climate.

U.S. President George W. Bush has made it clear that he will encourage massive increases in energy supply, including from Canada, rather than focus on energy efficiency and renewable energy. Prime Minister Chretien has made it equally clear that Canada is eager to help the U.S. satisfy its quest for more fossil fuel energy, even though the U.S. has turned its back on the Kyoto Protocol and has effectively rejected energy conservation.

As outlined by President Bush and U.S. Vice-President Dick Cheney, U.S. energy policy will consist of burning even more coal, oil and natural gas, and building a new power plant every week for the next 20 years – 1,300 in total.

Canadians will pay a high price for the massive increases in fossil fuel production – droughts and other damage from global warming, rising fuel bills as a result of high U.S. demand for natural gas and electricity, and health impacts caused by poor air quality. In addition, by increasing rather than reducing greenhouse gas emissions, we are forcing future generations to bear the full burden of the far more rapid emission cuts that will then be needed.

Today, the real crisis is one of greenhouse gas emissions, not a shortage of energy. Canada is well positioned to meet all the energy services needed through energy policies that can reduce energy demand, save consumers money and reduce greenhouse gas emissions.

Exporting energy produces more pollution in Canada

Per capita, Canada is one of the world's largest consumers and producers of fossil fuels, and one of the largest emitters of greenhouse gases. We are also the single largest source of foreign energy for the world's largest energy consumer, the United States.

Canadian oil production has increased from 547 million barrels in 1990 to 698 million in 1999. That year, Canada exported 458 million barrels to the United States, a 95 per cent increase from the 234 million exported in 1990. From January to November 2000, the U.S. imported more crude oil and petroleum products from Canada than from any other country. Prime Minister Chretien has repeatedly emphasized he will expand the Alberta tar sands to allow even greater increases in oil exports.

U.S. natural gas consumption and imports are slated to continue to expand through 2020, with Canada as a major supplier. President Bush has publicly stated, "We've got to make sure that gas comes out of Canada."

Reflecting the pressures of U.S. demand, increased fossil fuel production alone was responsible for 25 per cent of Canada's *growth* in energy-related greenhouse gas emissions from 1990 to 1998. In 1990, oil and gas production emitted 80 million tonnes of greenhouse gases. But by 1998, this total had grown

The growth in fossil fuel production will raise Canada's greenhouse gas emissions 44 per cent above the commitment in the Kyoto Protocol.

to 98 million tonnes, an increase of 22 per cent. The continuing rise in U.S. demand for fossil fuel energy means Canadian greenhouse gas emissions will continue to worsen.

New oil and gas developments have other environmental impacts as well as the climate change caused by greenhouse gases. For example, pipelines require service roads and land clearing, often in areas where natural wilderness had been previously undisturbed, resulting in habitat disruption. As well, processing, production and transportation of the fossil fuels causes local and regional air pollution.

Proposed new energy projects

Stimulated by rising U.S. demand and high prices, new oil and gas projects are being developed in the Alberta tar sands, in Northern Canada and in offshore areas in the Atlantic Ocean.

The National Energy Board estimates there are about 57.8 billion barrels of conventional crude oil yet to be exploited in Canada. Unconventional supply, including tar sands, could yield a further 308 billion barrels of crude oil. This is enough oil to meet world demand for about 14 years.

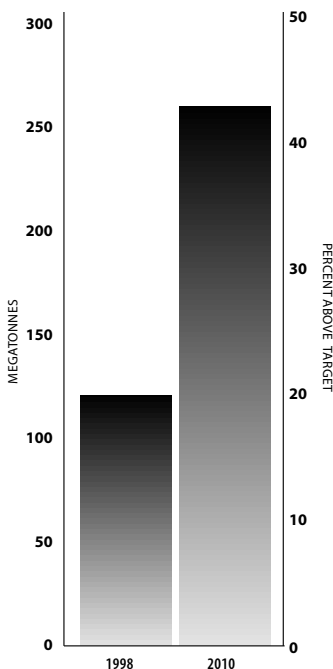
But the production and use of this fuel would have severe consequences for the planet's climate. This single source of energy would increase global concentrations of greenhouse gases by 6.7 per cent relative to the benchmark 1990 levels.

All of these projects are being advanced at the same time Canada claims to be addressing our Kyoto targets. Today there are more than 60 sites proposed or under development in the Alberta tar sands. Total greenhouse gas emissions from the proposed oil sands projects alone are estimated to grow from 21 million tonnes in 2000 to over 80 million tonnes per year by 2010. These emissions are just from the *production* of this oil, before the end products are even used.

In the far North, there are proposals to build two major natural gas pipelines. One would run parallel to the Alaska Highway to carry Alaskan gas to the lower states via Canada. It may also carry Canadian gas from the southern Northwest Territories, the Yukon, British Columbia and Alberta. The other would run the length of the Mackenzie Valley into Alberta, moving gas from the Mackenzie Basin and Delta.

At the same time, there is also a surge of new activity in conventional western Canadian gas fields. Taken as a whole, the estimates of new Canadian natural gas supply would result in an annual growth of about 19 million tonnes of greenhouse gas emissions.

In the Atlantic offshore region, oil and gas development is in relatively early stages. Total production from several projects is expected to reach 500,000 barrels per day over the next 10 years. Each 50,000 barrel per day increase in production is estimated to increase Canada's greenhouse gas emissions by 200,000 tonnes per year.



MISSING THE TARGET: GREENHOUSE GAS EMISSIONS GROWTH ABOVE THE KYOTO TARGET

The core of a wise energy policy is a sound climate policy.

Conservation and renewable energy: energy and climate solutions

The core of a wise energy policy is a sound climate policy – one that takes into account the full consequences of our over-dependence on fossil fuels and institutes a range of conservation and renewable energy options.

A recent report by the American Council for an Energy Efficient Economy found that by implementing automobile fuel efficiency standards the U.S. could reduce its dependency on oil by nearly five million barrels per day – two and a half times as much oil as the proposed tar sands expansion.

Climate solutions also save money. The U.S. Department of Energy estimates that country is now saving \$US150-200 billion annually as a result of energy efficiency measures put in place during the 1970s oil embargo. New technologies and energy-saving techniques have immense potential to add to those early savings in both Canada and the U.S. These include:

- Improving motor vehicle energy efficiency standards, providing increased support for effective public transportation and limiting urban sprawl.
- Improving the energy efficiency of residential and commercial buildings.
- Moving freight by rail instead of roads, which is six times more efficient.
- Updating standards for major appliances and industrial equipment.
- Promoting and encouraging renewable energy sources, through incentives, standards and utility reforms.
- Major economic instruments such as a carbon tax, or a domestic carbon trading system with national limits on overall emissions.

Instead of constantly expanding oil and gas supplies, Canada could stimulate jobs across the country by emphasizing energy efficiency and conservation. To do this, we must begin by working with the U.S. on intelligent energy policies and renewable energy sources, rather than simply expanding fossil fuel supplies.

The calls for new energy supply cannot be separated from the need to reduce air pollution and global warming. By becoming more efficient in the way we use energy, we can meet our energy needs, protect the climate, and create a healthier environment for current and future generations.

The full report – *Fuelling the Climate Crisis* – can be found at www.davidsuzuki.org/publications/climate_change_reports

Or call 1-800-453-1533 to order a copy of the report at a cost of \$10.



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