



# Re-energize...

time for a carbon sabbath

## FAST FACTS On Fossil Fuels

### WHAT ARE FOSSIL FUELS?

Fossil fuels are derived from the remains (fossils) of plants and animals that over millions of years have been compressed into hydrocarbons — dense concentrations of hydrogen and carbon buried deep beneath the earth's surface and oceans. The three main fossil fuels are crude oil, natural gas, and coal.

### WHAT ABOUT OIL SANDS?

Oil sands (also known as tar sands, bituminous sands, or extra-heavy oil) are a mixture of sand or clay, water, and heavy crude oil. Unlike conventional methods of extraction by means of drilled wells, the oil sands must go through a process that separates oil from the sand or clay. This process uses large amounts of energy and water which, although reused many times, is eventually so contaminated that it cannot be returned to the natural water cycle.

### HOW DO WE USE FOSSIL FUELS?

In almost every way imaginable! Whenever you travel in a car, bus, or airplane that uses petroleum fuel; whenever you use electricity that comes from coal-fired plants; when you use common cosmetic products, renovate your home, or store something in a plastic container. You avoided fossil fuels when you drank tap instead of bottled water, but that slice of lemon you put in your drink travelled to Canada from California on a truck fuelled by petroleum.

### HOW DO FOSSIL FUELS CONTRIBUTE TO CLIMATE CHANGE?

The burning of fossil fuels — which contain carbon — releases carbon dioxide into the air. Carbon dioxide is one of the gases, which in excess amounts contributes to the greenhouse effect. The greenhouse effect is a process whereby gasses trapped in the atmosphere prevent the release of excess heat from the earth, thus increasing global temperatures and creating other abnormal weather conditions. The International Panel on Climate Change (IPCC) has agreed that the climatic change we are now experiencing is due to human activity, most specifically our increased use of fossil fuels since the Industrial Revolutions of the 18th and 19th centuries.

## **WHAT ARE CARBON OFFSETS? WILL THEY SOLVE THE PROBLEM?**

Carbon offsets are a means by which we can compensate for the carbon dioxide we emit by paying a fee to an organization that will use the funds to plant trees (which scrub carbon from the air), develop green power, and so on. This is most commonly done for air travel, although offsets exist for many other types of activity as well.

There are a number of critiques of carbon offsets. First, the estimates of what is required to offset a given plane trip can vary wildly from one offset agency to another. Second, not all offsets are created equal. A tree-planting venture, for example, is only going to work if there is a guarantee that the trees will not be cut down. And they must be planted in the appropriate place to capture sufficient carbon. Third, there is concern that carbon offset enterprises are simply profit-making ventures. Some say that the biggest problem, however, is one of equity: carbon offsets let those who can afford it to keep polluting the atmosphere. Carbon offsets deal only with the ecological side of the cost of fossil fuels. And that is not the only problem.

## **HOW DO FOSSIL FUELS CONTRIBUTE TO HUMAN RIGHTS ABUSES AND CONFLICT?**

Control of, or access to, fossil fuels has historically been a key foreign policy objective of the world's most powerful nations. Military force has often been used to uphold or install "friendly" regimes in energy-rich or strategic countries, which allow foreign corporations to exploit their petroleum resources and export fuel to meet external energy needs. In other cases, internal conflict has erupted over control of, and profits from, petroleum, often leading to fresh waves of refugees, massive human rights violations, and the death and displacement of millions of people.

While wars cannot be attributed to a single cause, petroleum has been a clear factor in many conflicts, such as Iraq (1.6 million deaths since 1990), Nigeria (50,000 since 1999), Sudan (300,000 since 2003), and Colombia (up to 200,000 since 1964). The number of displaced people as a result of such conflicts is in the millions (4 million in Iraq alone since 2003).

## **WHAT ABOUT INDIGENOUS AND ABORIGINAL PEOPLES?**

Many of Canada's oil and gas deposits are located on or near the traditional territories of Aboriginal people and are often an integral part of ongoing land rights negotiations. Similarly, the construction of long pipelines often involves addressing Aboriginal land rights. Aboriginal people feel the ecological impact of energy projects in Canada's North most directly, yet consultations with and inclusion of them in decisions about oil and gas projects have been inadequate. This is also the case with indigenous communities in the global South, whose rights to self-determination continue to come second to the drive for fresh sources of oil and profit. Both in Canada and around the world, it is imperative that energy development projects have the Free, Prior and Informed Consent of all Aboriginal peoples affected; in other words, that the community decides, after full disclosure and consultation conducted in good faith through legitimate institutions, whether a resource extraction project should be developed on or near their lands.

## HOW DOES OUR GOVERNMENT SUPPORT THE ENERGY INDUSTRY?

Canadian energy companies have been earning record profits, yet they receive large subsidies from the government of Canada for both domestic and international exploration.

In 2006, according to its own website, Export Development Canada provided almost \$8.6 billion to support the oil and gas sector operating overseas. By contrast, it supported alternative fuel development with \$15 million, and renewable energy with \$9 million.

Canada also supports the oil and gas sector through multilateral institutions like the World Bank, which in 2006 provided US\$869 million in financing for fossil fuel development (an increase of almost 100% over the previous year) and US\$668 million for renewables and energy efficiency (an increase of less than 50%). Between 1992 and 2004, the Bank approved US\$28 billion in “oil aid” for fossil fuel-related projects, 17 times the amount it financed for energy efficiency and renewable energy projects.

These subsidies are questionable on a number of grounds. Not only are they economically unnecessary for companies which turn huge profits, they are counterproductive to the critical task of decreasing our consumption of fossil fuels and combating the climate crisis. In addition, overseas fossil fuel development is often related to corruption, human rights violations and conflict, and seriously skews economies towards over-dependence on energy exports.

## I HEAR A LOT ABOUT BIOFUELS. WON'T THEY SOLVE THE PROBLEM?

Large-scale targets for biofuels (such as ethanol) threaten to displace food crops, thereby driving up prices and potentially increasing food shortages for the poor. Mass scale schemes for turning sugar cane and oilseeds into fuel are also of concern in terms of their impact on ecosystems, small farmers and agricultural workers in the global South. As well, there is considerable evidence that current biofuel production, which uses an enormous amount of energy, does not significantly reduce greenhouse gas emissions.

Small-scale biofuel projects, on the other hand, that are sustainably managed by local communities could be a viable element of a new energy economy. Small-scale production of biofuels from agricultural waste or from cellulose and other non-food crops are likely to have less negative impact but they are not a panacea for replacing petroleum energy sources.

## SO WHAT IS THE SOLUTION?

Canada needs a just and sustainable energy policy. We must use our remaining hydrocarbon resources more efficiently, allocating them to their most appropriate uses, while we increase conservation efforts and make the transition to reliance on renewable energy sources. Public funds currently used to subsidize fossil fuel production should be better used to support programs that will develop conservation, energy efficiency, and renewable alternatives and reduce Green House Gas emissions, both in Canada and overseas.

The Canadian government needs to examine how its bilateral financing for fossil fuel extraction in the South and support of multilateral “oil aid” impact human rights, peace, and ecosystems, and move towards practices that foster the promotion and protection of these areas fundamental to life.

**This factsheet was produced by KAIROS in support of the ecumenical Re-energize!**

**Campaign for a Just and Sustainable Energy Policy. Produced in part with the financial assistance of the Canadian International Development Agency.**

KAIROS: Canadian Ecumenical Justice Initiatives is a faithful ecumenical response to the Biblical call to do justice. KAIROS members are the Anglican Church of Canada, the Canadian Catholic Organization for Development and Peace, the Canadian Conference of Catholic Bishops, the Canadian Religious Conference, the Christian Reformed Church in North America (Canada Corporation), the Evangelical Lutheran Church in Canada, Mennonite Central Committee Canada, the Presbyterian Church in Canada, the Primate's World Relief and Development Fund, the Religious Society of Friends (Quakers), and the United Church of Canada.

**Re-energize...**  
*time for a carbon sabbath*



KAIROS  
129 St. Clair Avenue West  
Toronto ON M4V 1N5  
1-877-403-8933  
[www.kairoscanada.org](http://www.kairoscanada.org) • [www.re-energize.org](http://www.re-energize.org)