FRACKING AND CLIMATE CHANGE

Industry officials and some governments are promoting natural gas as a "clean, green" fuel, but studies show that fracked natural gas can produce as much greenhouse gas (GHG) emissions as coal.

Hundreds of people joined the tar sands healing walk. Much of the energy produced by fracked gas is used to fuel the tar sands.

What is fracking?

Hydraulic fracturing, more commonly known as "fracking," is a technique to extract natural gas from harder to access unconventional sources trapped in rock formations such as shale gas, coal bed methane and tight gas.

This unconventional natural gas requires more energy and water to extract than conventional gas from easier to access reservoirs and more porous rock formations. This is only one reason for fracking's heavy carbon footprint.

Fracking and water

During the fracking process, millions of litres of water, thousands of litres of chemicals and thousands of pounds of sand are injected underground at very high pressure in order to create fractures in the rock allowing gas to flow up wells. Fracking operations deplete water sources, and have been known to contaminate groundwater with methane and undisclosed chemicals. Questions have also been raised about the safety of fracking wastewater disposal.

Fracking and emissions

Proponents of natural gas have said that natural gas is a climate-friendly fossil fuel because it produces less GHG emissions when burned compared to other fossil fuels. According to the Natural Gas Supply Association, natural gas produces half the CO_2 emissions of coal.[1] But that doesn't make fracking clean! The lifecycle greenhouse gas emissions – that is the combined emissions associated with extraction, combustion, and methane and CO_2 releases – means that fracked gas can be as dirty as coal.[2]

Fracking releases large amounts of natural gas – which consists of both CO_2 and methane – directly into the atmosphere. In fact, fracking wells leak 40 to 60 per cent more methane than conventional natural gas wells.[3] This happens when water is forced down into a fracking well in order to fracture the rock formations. Methane flows up the well and is released into the atmosphere before it can be captured.[4] The leaked methane is called "fugitive methane" and has been detected using infrared videos. It is identified as different from naturally occurring methane.[5]

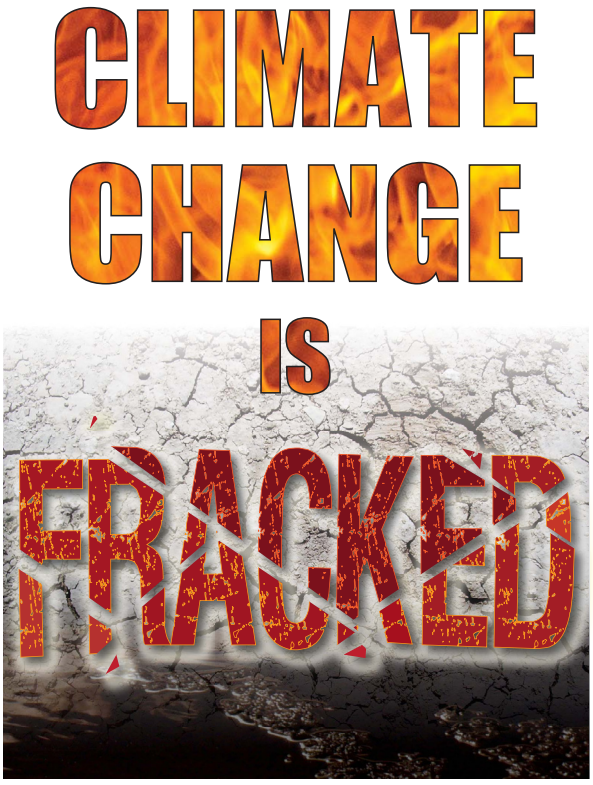
Methane in particular is a very powerful greenhouse gas. It can trap 20 to 25 times more heat in the atmosphere than CO_2. Two Cornell scientists who have been studying fracking in the U.S. estimate that in the next 20 years methane will make up 44 per cent of the U.S.'s GHG emissions. Along with contributing to global warming pollution, methane leaks kill plants and trees, contribute to ozone formation, and causes natural gas explosions, which have resulted in an average of 17 deaths and 68 injuries per year in the United States alone.[6]

The future of fracking

Fracking is not a clean or green form of energy. Fracking and the rest of the fossil fuel industry is preventing Canada from reducing its GHG emissions and doing its fair share to mitigate the global climate crisis. Shale gas development can ultimately bring climate consequences comparable to coal over a century, and worse than coal over two decades.[7] Rather than continuing to frack for natural gas, we should be looking for creative solutions to transition off of fossil fuels.

Communities are protecting water and the climate

Many communities are taking action against fracking in order to protect their water and mitigate climate change impacts. A dozen members from the Kainai Blood Tribe in Alberta blocked fracking trucks from accessing their lands.[8] The Unist'ot'en in northern B.C. have built a log cabin in a fracking pipeline's "right-of-way" and municipalities such as Burnaby, B.C. and Niagara-On-the-Lake, Ontario have called on their provinces to put a moratorium on fracking projects.



Take Action!

1. Meet with your municipal councillor and pass a local resolution banning fracking in your community.

2. Write elected representatives of all levels and demand they protect the water, stop emissions, and put a moratorium on fracking.

3. Connect with other local communities actively fighting fracking. Visit www.canadians.org/fracking to add your fight to the "Fracker Tracker" and to learn more about other communities that are taking action across Canada.

For more information about the Council's campaign to stop fracking, visit www.canadians.org/fracking.

Sources:

[1] Natural Gas Supply Association website NaturalGas.org at www.naturalgas.org/environment/naturalgas.asp#emission

[2] Page 6 Parfitt

[3] http://www.scientificamerican.com/article.cfm?id=fracking-would-emit-methane

[4] http://www.scientificamerican.com/article.cfm?id=fracking-would-emit-methane

[5] Green.blogs/nytimes.com/2012/11/20/methane-is-popping-up-all-over-boston

[6] Green.blogs/nytimes

[7] http://thehill.com/blogs/e2-wire/e2-wire/155101-report-gas-from-fracking-worse-than-coal-on-climate

[8] http://www.cbc.ca/news/canada/calgary/story/2011/09/11/alberta-blood-reserve-fracking-protest.html

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