

NO FRACK- ZINE



This zine demands that the NL fracking review panel recommend a full ban on fracking in Newfoundland and Labrador

THERE IS NO PLANET B.

Despite not really knowing the risks of fracking (and therefore we shouldn't even be having this 'pro' and 'con' deliberation at all), the following pages will address at least ten of the panel's topics under the Terms of Reference. I also offer a delicious (but challenging) recipe for averting climate change—hint, fracking is not part of the mix.

But first, a few preliminary thoughts on...

Review process itself

The review process may itself be deeply flawed and condition a particular outcome (i.e., a business- and industry-friendly one) based on the methodology used and the sorts of input and comments from the public that are considered legitimate. This is why I believe that any review must be based on a strong precautionary principle and must include comments/input from the public that may not be framed in scientific or technical terms, even comments that are deemed of "an emotional nature."

Any legitimate review must also not compartmentalize the various parts of the fracking process—as though surface spills, tailings pond failures, increased road traffic, fugitive emissions, and other factors that impact the environment and quality of life of people living near frack wells can be separated from the moment of fracking itself (as was done by Maurice Dusseault during his Harris Centre talk "The Facts on Fracking: An Engineering Perspective"). Whether an independent review deems certain comments emotional and not worthy of inclusion, they are in fact how the people living in the area feel about the adverse effects of fracking on their communities and therefore are directly relevant to any legitimate review.

If valid concerns raised by the public are not taken into account, within the purview of a methodology based on a strong precautionary principle, the

review process—no matter how independent we're told it is—will simply reinforce an industry-backed foregone conclusion.

Emotion

"It seems there is confusion over what questions ought to be asked if we are to make the right decision on fracking. The question of *how* to frack is a scientific question. The question of *whether* to frack is a much broader and more complex question that should incorporate local knowledge, ethical concerns about future generations, social and cultural bonds to the land and sea, and plenty of emotion."

The question of whether to frack asks us to grapple with all the aspects of fracking, from wastewater toxicity levels to the physical and mental health effects of living close to fracking wells

To do this, we need a panel and a decision-making process that recognizes the psychological effects of climate change, contemplates the ethics of allowing large corporations to disrupt natural areas near local communities, and considers the long-term effects of fracking and the social inequalities perpetuated by fossil fuel-based economies.

Paula Graham, The Independent:

<http://theindependent.ca/2014/12/06/should-we-frack-emotions-need-not-apply/>

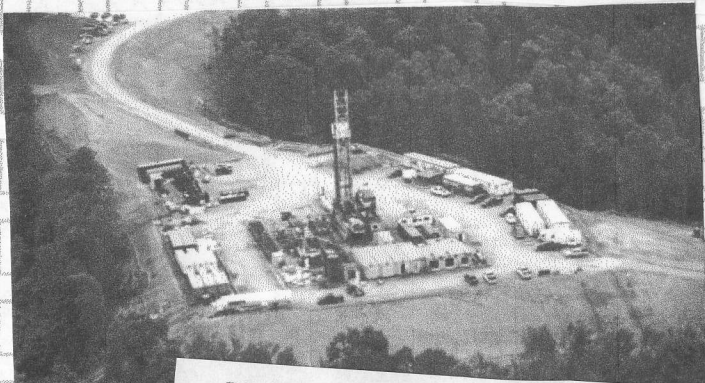
• Potential Impacts on Groundwater

Fracking uses unsustainable amounts of water. A fracking project requires anywhere from 10 million to 200 million litres of water.

A typical fracked well requires the use of between 55,000 and 220,000 litres of chemicals, but the specific combination and quantities of chemicals used are considered proprietary trade secrets. While some companies are voluntarily reporting some of the chemicals they use, they are not legally required to disclose the full list.

• Potential Impacts on Surface Water

There are hundreds of reports of drinking water contamination associated w fracking in the United States. The extent of water contamination is hard to measure, especially considering the silencing of affected homeowners through legal gag orders from fracking companies. Absence of evidence is not evidence of absence. The industry insistence of no firm link between fracking and ground water contamination is no match for water that can be lit on fire.



• Management of Additives

How can we manage the additives if companies are not required to disclose what they put in the chemical mixture? If these details are proprietary, then how can we possibly manage what we are not privy to?

• Waste Management

Without a clear plan for what will be done with wastewater resulting from any hydraulic fracturing in Western NL, how can the panel properly evaluate the relative safety or public health concerns for disposal of wastewater?

For example, without having already established which companie(s)

will handle wastewater and without knowing the ways those companies will operate, how can risks be evaluated? Will wastewater be held in tailings ponds? Will wastewater be transported in pump trucks to facilities in distant parts of the province or other parts of the country? Will those facilities reduce wastewater to solid forms? How will solid forms of waste be disposed, and where?



Tailings pond in
Debert, Nova Scotia.



Wastewater disposal has been a major source of concern in other jurisdictions and it seems superfluous to discuss the pros or cons of a process like hydraulic fracturing without having first addressed this issue.

If waste water will be transported outside the proposed area for hydraulic fracturing in Western NL, shouldn't the areas to which, or through which, waste water will be transported be directly involved in public consultations and decision-making for the province's fracking review panel?

• Air Emissions

Air emissions from fracking wastewater stored in open pits is also a major concern to air quality. Flaring, fugitive methane emissions,

and heavy truck transport also causes high levels of greenhouse gas emissions, which contributes to climate change.

• Socio-Economic Impacts

Industry representatives are promoting fracking as a solution to our energy needs (or a 'transition fuel' – transition to what, you might ask?). However, the false promises of new jobs, low natural gas prices, energy security are all part of industry spin to push forward fracking projects.

Our energy needs can only be solved through innovative thinking and a shift away from fossil fuels altogether.

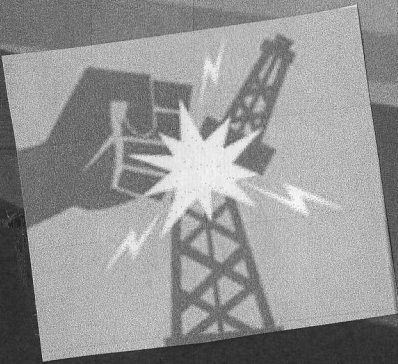
Jobs and the economy

It is a known fact that there are fewer jobs in the oil and gas industry compared to the renewable sector per investment. For every \$1 million invested, 14 jobs are created in building efficiency and 15 jobs are created in clean energy (such as wind and solar).

Only two oil and gas jobs are created with the same money. Who's the real job creator? It's certainly not in the oil and gas industry.

(www.bluegreencanada.ca)

YES WE CAN



BAN FRACKING

• Community Engagement

Fracking clearly does not have social license on the west coast right now. Social license is not a few tokenistic consultation sessions (and not anywhere on the east coast of the Island...) and it involved those most effected by fracking the ability to say NO – without the Board of Trade having a temper tantrum about business taking their fictional jobs elsewhere. So be it.

How many jobs will fracking kill in the \$1 billion a year tourism industry?

There's no

point in hitching our futures to a dying industry, unless we hate jobs and the economy.

• Seismicity and Geological Risks

There is a proven connection between fracking and increased seismicity (i.e., earthquakes). Also, the geology of western Newfoundland is different than other deposits of shale

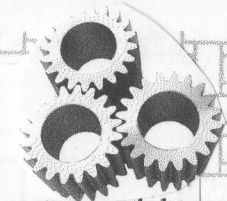
Guardian article, "US government say drilling causes earthquakes – what took them so long?"

<http://www.theguardian.com/world/2015/apr/24/earthquakes-fracking-drilling-us-geological-survey>

The earthquake connection is being made in Alberta as well (4.4 magnitude earthquake felt recently in Fox Creek, which sits on the rich Duvernais Shale and hence a growing hub for oil and gas fracking activity). Source:
<http://calgaryherald.com/business/energy/ewart-man-made-earthquakes-send-shock-waves-through-oil-industry>

Since fracking has been shown to cause earthquakes, the lack of knowledge on the distinct geology of Green Point Shale in western Newfoundland, any fracking along sensitive fault lines could risk causing damaging earthquakes and increased seismicity.

• Regulatory Oversight and Responsibility



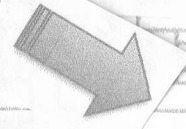
The *Chronicle Herald* reported in 2014 that lax regulatory oversight was responsible for 14 million tons of fracking wastewater sitting in tailings ponds for two years near Truro. This lack of regulatory requirements surrounding the treatment, storage, and disposal of wastewater is a clear indication of the overall lack of planning concerning this crucial phase of the fracking lifecycle.

Black Spruce Energy claimed that they would ship their fracking wastewater to Nova Scotia. However, Nova Scotia, with all its troubles finding a treatment plant that would treat their millions of liters of toxic wastewater, does not want to import any more. The fact that there is not a viable plan for the full life cycle of the fracking process, in terms of a regulatory frameworks, fracking should not be permitted in Newfoundland.

• Financial Security and Insurance

Le Monde Diplomatique in their 2013 article "The Great Oil Swindle" has raised concerns about the economic bubble of the "shale boom" and the dodgy economics of fracking. They report that the production at wells can drop by 60-90% in the first year, which causes operators to drill more and more wells to maintain levels of production.

These two articles outline very clearly the financial insecurity inherent in fracking. For the reasons they outline, this panel should ban fracking in Newfoundland – nip this in the bud.



"The Great Oil Swindle": <http://mondediplo.com/2013/03/09gaz>

Wolf Richter of *Business Insider*:

<http://mobile.businessinsider.com/capital-destruction-in-natural-gas-2012-6>

Climate Change (the ELEPHANT IN THE ROOM!)

Since natural gas development is a major contributor to global warming, we should be moving away from a dependency on fossil fuels as a whole and into renewables, so we don't exacerbate and speed up the effects of climate change.



What about climate change?

Recipe to avert catastrophic climate change

(We will all be affected – even fracking companies! – and so climate change is our unavoidable context for any deliberations on expanding extreme energy infrastructure in Canada, like hydraulic fracturing).

- Keep planetary warming **below 2degrees** – we are on track to a 5degree warming continuing business as usual!). Almost every country in the world agreed to meet this target at the 2009 Copenhagen Summit.
- Stay within the total emission limit of **565 gigatons of CO2** to stay under 2degrees. At current rates we will blast through this in 16 years!

Fossil fuel companies have **five times** this number in their known reserves that they intend to use.

- Leave **80%** of all known fossil fuel reserves in the ground.
- Leave **ALL** Arctic fossil fuel reserves untouched.

Therefore, hydraulic fracturing must not be allowed to start in NL if we are to do our part in fighting climate change. Fracking does not fit into the provincial government's 2011 Climate Change Action Plan and would push us in the wrong direction for the struggles ahead.

**WE CANT BUY
A NEW
EARTH**

70% of Canadians

support a

moratorium on fracking

