

Preferred changes to Amendments to Chapter 342 of Revised Statutes of Petroleum Resources Act

The purpose of my submission is not to advise this Committee of the risks or externalities associated with Hydraulic fracturing, yet given that a government decision to draft preventative legislation is the entire reason we are here I'm assuming you will acknowledge there to be some. I want to rather take this time explain four changes with I would like to see made to the Amendments in question which will create an appropriate legislative tool.

1. I would like to suggest that the definition for hydraulic fracturing be included in the amendments as follows: "Injecting fluids into or releasing formations fluids from a geological formation at a force exceeding the parting pressure of the rock inducing a network of fractures through which natural gas can flow to the wellbore " (adapted from Council of Canadian Academies, 2014)

With a definition of hydraulic fracturing included in the text of the amendments, and therefore the act, both MLAs and the people could see what is being prohibited and what is being allowed. Without defining the activities that are prohibited in the Act there is no legislated ban. The lack of a legislated ban is the lack of a contract between the government of Nova Scotia and its people. Without that definition there is going to be a lack of trust between the government and its people, no matter the ultimate text included in the regulations.

2. I would like you to remove the current sentence providing an exemption clause for research and testing.

"Research" and "testing" are not defined in the Act or in regulations. There are no regulatory bodies currently able to handle the oversight needed for research and testing in this area. There is not physical infrastructure to deal with the material production from research and testing operations. The lack of royalty structure means there is no compensation for the risks associated with research and testing, and with active leases " polluter pays" legislation is not able to be enforced.

3. Remove the wording of " shale formations" and replace with "formations which contain naturally occurring hydrocarbons". \

Coal bed methane uses similar technology to hydraulic fracturing and has similar consequences. Moreover coal bed methane is again only economical when done with a large number of wells in a concentrated area. It still produces formation water with NORMS< heavy metals and drilling chemicals.

4. Strike the wording which authorizes the Minister responsible for the Petroleum Resources Act to conduct a review of high-volume hydraulic fracturing and rewrite explicitly stating the public forum and community-based decision making process which is required for any change in legislation to these amendments.

The minister is not a community. During extensive work by the Wheeler Review panel the common recommendation was for the ultimate decisions to be community based. Moreover on Sept. 3, 2014 Min. Andrew Younger promised a) The people of Nova Scotia own the resources of the province and have the right to decide what is done with them. b) Create energy options supported by the Assembly of Nova Scotia Mi'kmaq chiefs. The wording of this acts reflects non of this .