

Thank you for giving me the opportunity to make a submission to the enquiry into Hydraulic Fracture Stimulation in Western Australia 2017.

I would like to start by giving not a fact but an opinion. I think Western Australia, and Australia as a whole, should ban fracking and focus entirely on renewable energy. I also think this decision needs to come very soon, if the people living in Australia have any chance of leaving their country liveable for their children and grandchildren (please see Ian Dunlop's article, 1). The sooner this decision, the more clarity will be given to industry so that it can go ahead with much awaited investment.

I studied psychology and public government, and one of the main teachings is that the government has the responsibility, and the authority, to look after the long-term well being of its citizens (2). Humans are in general not built for keeping an eye on the long term consequences of their behaviour, and underestimate risks (3). The results of this flaw are visible as man-made disasters world-wide (see for example Bill McKibben's article on climate action, 4). This is particularly why it is so important for governments to be aware of that most important role: to plan for the future, using the information that is currently at hand – provided by science and other professions.

Companies are different to governments, and have as their main aim to make a profit. They can therefore not be expected to be responsible for looking after the land, after the future, after the long-term social and health implications of their business activities. They can offer jobs and services and play a valuable and positive role, but they cannot be relied upon to design or voluntarily develop the long term vision for a country or state.

When it comes to fracking, in the long term, *"...studies show that many oil and gas wells leak, allowing for the migration of natural gas and potentially other substances into groundwater and/or the atmosphere. According to Schlumberger, one of the world's largest companies specializing in fracking, about five percent of wells leak immediately, 50 percent leak after 15 years, and 60 percent leak after 30 years. Recent research suggests that the act of fracking itself creates pathways for leaks. The problem of leaking wells, identified by industry, has no known solution. Leaks pose serious risks, including potential loss of life or property from explosions and migration of gas and other harmful chemicals into drinking water supplies. Methane leaking into aquifers, can under some conditions, be transformed by bacteria into hydrogen sulfide and other poisonous byproducts. Microbes from deep shale formations can likewise generate sulfides contributing, over time, to corrosion of pipes and casings.*

Leaks also allow methane to escape into the atmosphere, where it acts as a much more powerful greenhouse gas than carbon dioxide. There is no evidence to suggest that the problem of cement and well casing impairment is abating. Indeed, analysis of more than 75,000 compliance reports for more than 41,000 wells in Pennsylvania found that newer wells have higher leakage rates than older ones and that unconventional shale gas wells leak more than conventional wells drilled within the same time period. Industry has no solution for rectifying the chronic problem of well casing/cement failures and resulting leakage. (5)

Many peer-reviewed studies (5) have shown conclusively that the fracking processes poison the environment, which is what we humans are an integral part of. If a government therefore allows fracking, it is not looking at the long term and it is not properly looking after its citizens. It is, in

particular, ignoring those citizens who cannot help but need country to be happy at all: the aboriginal people. The field of psychology that takes into account the earth, the soil, the water, air, plants, trees, the health of the world we are part of, is an accepted scientific field (6). It is becoming more and more apparent that we are integral with the world around us.

All this trouble, all this work, all that money spent on fracking, the world over. All those risks overlooked. All that while there are already truly excellent opportunities to switch to renewable energy in WA (7)

And so I call on the Independent Scientific Panel Inquiry to recommend a permanent, legislated ban on fracking and unconventional gas activities across WA, and to recommend the development of renewable energy resources to meet the state's energy needs.

The development of new fossil fuels including gas will increase carbon pollution and is inconsistent with international agreements on climate change. Our state has plentiful renewable energy resources and more fossil fuel developments are not needed.

Kind regards,

Gita Sonnenberg MSc

1. Disaster Alley: Climate Change, Conflict & Risk”, Ian Dunlop & David Spratt, Breakthrough National Centre for Climate Restoration, June 2017:
<https://www.breakthroughonline.org.au/disasteralley>
2. <https://www.humanrights.gov.au/publications/human-rights-brief-no-3>
3. Daniel Kahnemann, “Thinking fast and slow” (2011). See for a review and summary:
<http://www.nytimes.com/2011/11/27/books/review/thinking-fast-and-slow-by-daniel-kahneman-book-review.html>. Daniel Kahnemann received a Nobel prize for his work on human thinking and decision making.
4. Bill McKibben, “Stop talking about climate change”,
<https://www.theguardian.com/commentisfree/2017/sep/11/threat-climate-change-hurricane-harvey-irma-droughts>
5. Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking – Fifth Edition
6. <https://www.socrates.uwa.edu.au/Pub/PubDetailView.aspx?PublicationID=521032>
7. SEN, Yes we can go 100% renewable! <http://www.sen.asn.au/100>