

TO: Environment and planning committee's inquiry into unconventional gas in Victoria.

This submission is made by The Clean Food Garden in the SW. Vic., an area under licence to explore for unconventional shale and tight gas. The clean food garden is an initiative to change the eating habits of the local communities so as to improve their dwindling health, deal with their increasing weight and their at risk spirit. It comprises a demonstration, production and training food garden of 8h. of fruit, vegetables, nuts, herbs ,poultry and rabbits and the expansion of a local network of growers working cooperatively.

This submission covers Safety, Water, Health, Spin & Deceit and Opportunity.

SAFETY:

None of the terms of reference of this enquiry ask, or even imply, the important question- Is the technology of unconventional gas extraction safe?

The experience of the USA. and, now, SE.Qld. shows overwhelmingly that this technology is not safe- not safe for our water resources, nor our soil, nor our health. If this technology was assessed using the parameters that have developed in Australian Codes of Safety- codes from children's playgrounds to the Lucas Heights nuclear reactor- it would be rejected outright.

The gas industry lobbyists and spin doctors propoganda that hydraulic fracturing is a " 60 year old, well proven technology" This is true. The first hydraulic "fracking" happened in 1940's at shallow depths using water pressure to create a "water hammer" to release the last of oil from near defunct wells. But this is not what hydraulic fracturing is today. In 1998 "slickwater fracturing" was developed which drastically reduces the cost of horizontal drilling [developed only in 1991] How? By developing a chemical cocktail enabling drilling over distances far beyond anything previous and were able to fracture at these distances because of a further cocktail of chemicals.

So it is not a "60yo. proven technology". The gas industry is 1. Spinning. 2. Telling half-truths. 3. Lying.

[An aside: We hope the committee members have watched the many documentaries from around the world. An Australian one, "Fractured Country" has a scene of a grazier in SE.Qld. saying " You know when a representative of a gas company is lying. His lips are moving."]

-Rehabilitation bonds.

Apparently, the companies operating coalmines in the Latrobe valley have paid \$15m. in bonds. Estimated cost of rehabilitation is \$150-200m. This could be called-

- A. Stupidity
- B. Another hidden taxpayer subsidy
- C. Corruption

If this unsafe technology is given approval then bonds of \$100's of millions for each licence must be applied.

Rachel Carson in her world changing book "Silent Spring" about the poisoning of water by toxic chemicals from industry and agriculture led the Nixon administration to legislate the Clean Air act, Clean Water act and Safe Drinking Water act. If modern hydraulic is a safe technology then we have to ask ourselves: "Why did Dick Cheney as vice-president [previously CEO. Of Haliburton, the largest company using the new chemicalized slickwater] use undue influence to successfully have unconventional gas wells *exempted* from the clean air, water acts [and numerous other environmental protection acts]. The answer is obvious. Because the technology is unsafe. Period.

It is not the responsibility of community groups nor governments to prove a new technology safe. It is the responsibility of the persons wanting to use it.

WATER:

Ask any hydrologist who is not beholden to a mining corporation and they will tell you that hydrology, especially as it pertains to aquifers, is not an exact science. The evidence of methane migration from unconventional gas wells around the world is overwhelming. In fact, just recently, Mark Boling vice-president, Southwestern Energy, one of the principal unconventional gas miners in USA., publicly said his industry has a serious methane problem. In SE. Qld., in the few years of mining, there is already methane contamination in farmers bores.

Professor Anthony Ingraffea, prof. of engineering at Cornell University has shown, using *industry data* as one of his sources, that 6.2% of wells leak methane in the first year, 30%lose their exclusion from surrounding geology within 30 years and all wells lose their integrity within 100 years. Lucky for the mining companies which have long gone and if past attempts at legal action for poisoned water and damaged community health are any guide, these companies are now a shelf company in the Canary Is.

So the water quality is permanently under threat from operating & disused wells. Large parts of the licence areas are limestone sub-strata known to be unstable. Other parts have non-horizontal rock strata which, according to a geologist at a recent community consultation session on gas mining, should not be drilled using modern fracturing.

Massive quantities of water are needed to drill and to fracture alongside farmland also using large quantities via pivot irrigators on potatoes, dairy farms and fodder production for the Chinese market. Over 100,000 farm bores and most towns draw water from the same source in the licence areas. Given the pollution and health events that have already occurred around the world, if your committee recommends that unconventional gas extraction takes place then you need to demand that every existing water supply within the mining area [and outside the mining area where it is known or is probable that the water supply is connected to water supply within the mining area], that, PRIOR to drilling, these water sources be tested for hydrocarbons , for naturally occurring toxins buried in the earth until penetrated by a drill and for all chemicals that can be used to make the many different varieties of fracking fluid. In other words baseline studies of water levels and , more importantly, baseline studies of water chemistry be conducted prior to production licences being granted. Mining companies, of course, will bear the cost of such testing. Taxpayers are not to be used yet again to finance hidden subsidies to mining corporations.

HEALTH:

The effects on residents amongst the gasfields in USA. are very serious- testicular toxicity, malfunction of the embryo, bone marrow depression, red blood cell destruction, mysterious body pains, asthma and more. Dr. Theo Colborn, former advisor to EPA. In USA. has documented all this and "air contamination at very high levels of known and suspected human carcinogens".

Benzene at 55 times the health standard, arsenic poisoning from flooded evaporation ponds, loss of smell, very serious neurological effects and on and on and on.

The industry truth massagers tell us this won't happen in Aust. because we have a different regulatory system. Good news, except for the residents of SE. Qld. who are already being poisoned. As a victim of gasfields in the award winning documentary "Gasland" says when asking a regulatory authority officer..."Whose there for the people?" "Nobody. Call a lawyer". This is undemocratic, it is corrupt, it is obscene.

The Australian Medical Association has already come out with serious concerns about the damaging health effects of unconventional gas mining. I hope your committee is consulting them.

SPIN & DECEIT:

As already mentioned, the gas industry's claim of a 'well proven technology' is misleading. And even when that phrase is analysed, we get what? A technology that works, ie. it extracts gas. So what? 'Is it safe?' is the issue and I don't think we will ever see the word 'safe' used in their spin.

Beach Energy have an interesting handout on just a few of the chemicals in fracturing fluid. There is a column headed-[some extracts]

"Common use of chemical"

- swimming pool cleaner
- disinfectant
- manufacture of household plastics
- antifreeze
- hair dye

So we are meant to read this list and think...."Ah, ok. Can't be that bad". Except I don't know anybody who drinks anti-freeze or eats plastic.

The industry argues that the list of possible chemicals that can be called upon to deal with each drilling scenario cannot be made public because of 'commercial confidentiality'. This is deceit. They are not because they do not belong to one company. It is the drilling and fracking gels for each drilling application that are commercial in confidence. Every possible chemical that may be called upon to fracture must be made available to the enquiry and be publicly available.

Unconventional gas is hailed as a "clean" or "cleaner" fossil fuel. It is not. Because of its uncontrollable methane emissions, studies have shown that combining the CO2 when burnt and the emitted methane during drilling and operating, pipeline leaks and compressor station leaks, unconventional gas emits *more* greenhouse gases than oil or coal.

OPPORTUNITY:

We now know that fossil fuels are toxic. They may have given us economic progress and a high material standard of living but ever since coal was burnt in factories in the early days of the industrial revolution authorities have

known the negative health effects. And fossil fuels are running out and fast. Unconventional gas mining is the last gasp of a dying industry who do not care about poisoning our water and could be accused of raping the earth.

You, as a committee, can change this.

You have the opportunity to stop political jousting and become true leaders of the people and give an example to the whole world that when decisions are made on the basis of the common good then insanity can be held in check.

You can recommend a total ban on unconventional gas and recommend, as a matter of high emergency, a total commitment to non-polluting renewable energy; or you can continue to jump to the whistle of the mining corporations who do not grow your food nor give you clean water.

You are, after all, a sitting member of parliament because you were given that job by people, the voters, who want clean water, safe food and an unpolluted environment. You are responsible to them. They are the majority. Mining corporations and their shareholders are the minority. If this is a democracy, we have might on our side.

To paraphrase a native Nth. American saying:

Only

When the last tree is cut down
The last drop of oil is burnt
The last aquifer is poisoned

Will the White man realize

You cannot eat money.

Kevin Cotter

