

Environment and Public Affairs Committee

From: Cliff Harris
Sent: Tuesday, 24 September 2013 2:32 PM
To: Environment and Public Affairs Committee
Subject: Submission to Parliamentary Inquiry into Unconventional Gas fracking in W.A

GAS FRACKING SENATE INQUIRY

SUBMISSION

Firstly I would like to make some points relating to the chosen terms of reference.

Term of Reference 1: How hydraulic fracturing may impact on current and future land use

Within in this, I believe that consideration should be given to:

- (a) The right of the landholder to deny access to his/her land should a mining company wish to enter/mine the property.
- (b) The sanctity of National Parks, Reserves and Old Growth Forests.
- (c) The effect of fracking on, not just the land, but the aquifers, artesian basins, streams & rivers.
- (d) Native Title.
- (e) Impacts on ground water, soil quality and the long term effects on crop & stock production.
- (f) Effects on export markets (when it's discovered that crops & livestock have been contaminated).
- (g) Viability of farming & gas production co-existing.
- (h) Possible increase in seismic activity (earthquakes) and land subsidence.

Information on the above is readily available from a wide variety of sources both Australian & world-wide, practical information drawn from actual current events, not simply theory.

Term of Reference 2: The regulation of chemicals used in the hydraulic fracturing process

1. Most of the chemicals used in hydraulic fracking are undetectable. Once in the environment, they will be untraceable. The cause of any chemical pollution will therefore remain unknown and hence counteraction will not be possible.
2. Even without chemicals being injected into the bores, some very dangerous chemicals that have been stored underground in the coal/sand/shale seams (BTEX) will be released.
3. If in reaching the gas seam it is necessary for the bore to pass through an aquifer, there is no guarantee that the gas &/or chemicals will not leak into the aquifer. Australia is already facing a major water crisis with underground water (particularly in W.A) becoming a vital source.
4. Many of the artesian basins cover thousands of kilometres across Australia & if contaminated, the pollution will be extremely wide-spread.

It is important to note that if asked, mining companies tend to downplay all of the above and issue all sorts of guarantees. Hence it is important that information regarding these matters be gathered from independent, scientific sources.

Term of Reference 3: The use of ground water in the hydraulic fracturing process and the potential for recycling of ground water

1. The amount of ground water used in the fracking process is enormous (each bore using up to 30,000 litres). This causes a huge draw-down of the water table. Water bores dry up, plants (crops, trees) die with all the associated economic consequences. Land subsidence also results.

2. The water drawn from the fracked bore does not only contain some very dangerous chemicals, but heavy metals and a huge amount of salt.

3. This water (produced water) cannot be used for any purpose unless it is purified to a large degree. This would involve prohibitive costs.

4. Produced water cannot be reintroduced into the bore as aquifer contamination is probable.

5. Storage of produced water above ground has innumerable dangers as well.:

(a) Plastic linings are able to be punctured.

(b) Overflow is a possibility after heavy rain.

(c) There is the threat wildlife and stock. (Poisoning, drowning).

(d) The space consumed by the storage ponds is enormous.

Term of Reference 4: The reclamation (rehabilitation) of land that has been hydraulically fractured.

1. The reclamation of the land (and all the other disasters that will have occurred), rests squarely with the mining company. They have made the profits, they should pay for the cleanup, not the landholder.

2. In addition, the cleanup should be closely monitored by government (not the mining company) and any failure by the mining company to fulfill its obligations should be met with enforcement to achieve the desired outcome and a heavy fine.

If by "land" in the term of reference the meaning is "surface land, sub-surface land and aquifers" then I don't believe that suitable reclamation is actually possible.

Secondly I would make the observation that there are too few terms of reference.

In addition to the four stated, the following need to be addressed:

1. Baseline Data.

(a) Does any exist?

(b) Will an effort be made to collect such data before any unconventional gas operations are allowed to commence?

2. Air pollution.

Given that the world is facing some very difficult times due to Global Warming and given that methane gas (the primary content in unconventional gas) is some 30 times more damaging to our atmosphere than carbon dioxide gas (the gas touted as being the dangerous one), then this should be a major consideration.

Monitoring for fugitive emissions should be part of any regulations devised for mining operations.

3. Social Impacts.

(a) The impacts on people's physical and mental health should be considered.

where The following impacts have already been recorded in areas of Australia
 CSG mining is being conducted:

- (i) Children have experienced nose bleeds, headaches & vomiting.
- (ii) People have experienced respiratory problems.
- (iii) Farmers suffer mental stress caused by:
 - * Constant noise, light, odour from mine sites (even distant)
 - * Dropping ground water levels with associated stock problems
 - * Contaminated water (chemicals & salt) effecting stock & people.
 - * Water outlets that ignite when near a flame (methane gas)
 - * Collapse of property value (even if bores are only in the area)
 - * Loss of income due to effects on crop or stock quality.
 - * Restricted stock movement on the property due to infrastructure.
- (iv) Town folk suffer mental stress caused by:
 - * Increased rents. Town people can no longer afford to live in town.
 - * Lifestyle degradation (the town becomes a mining camp) the advent of Fly-In, Fly-Out employees.
 - * Intimidation by mining employees in many cases.

mining
 the
 with

Once the initial work is completed in setting up the infrastructure in an area the bulk of the personnel leave and the town is left gutted.

In addition, since the area now has operational bores the nature of the area that had attracted people no longer exists.

Where the town may have originally been a tourist destination, that industry is lost. (Who wants to visit an area to see gas bores?)

4. Commercial impacts

- (a) Loss of farming land (farms & gas cannot co-exist!)
- (b) Need to rely more on imported food
- (c) Loss of major water sources.
- (d) Diminished export markets due to contamination.
- (e) Injury to the tourist industry.
- (f) Loss of forestry dollars
- (g) Ultimate control by overseas corporations

All of the above are in exchange for a very short term monetary gain, most of which is made by large overseas corporations. (The lifespan of unconventional gas is relatively short).

Australia has enormous supplies of conventional gas. Why risk damaging Australia's environment so catastrophically for a small amount of unconventional gas?

CONCLUSION

I believe that research for this inquiry should be exhaustive & unbiased, with data being collected from independent and reliable sources.

Large amounts of factual information, gathered by a wide variety of people, including experts in various scientific and economic positions is available. Information from mining companies may not be particularly accurate or unbiased

CSG (& other types of unconventional gas mining) is being developed in both the Eastern States of Australia, America, Europe & U.K. These developments are all producing worrying environmental, economic & social impacts.

Cliff Harris