Submission for CSG review

Robin Ellis to: csg.review 22/04/2013 12:50 PM

History: This message has been replied to and forwarded.

To the NSW Chief Scientist & Engineer

I am not a scientist or highly educated individual. I rely on information about coal seam gas and fracking from sources like the internet.

Real people experiences are what have impacted me in regard to this industry - this industry has proved to be detrimental to the wellbeing of humans and our land.

I have read articles referencing a research report by the Tyndall Centre UK and reports and videos from fact finding tours in America… all alarming.

Contamination: the chemicals injected into the rocks and the contaminants released by the fracturing have the potential to pollute water supplies.
(In some areas of the US the mining companies provide water to people in mining areas because the groundwater is no longer safe to drink or shower with.)

The Tyndall Centre at the University of Manchester reviewed the impacts of fracking in the only country where it has so far been commercially exploited, the United States. It found that fracking poses "significant potential risks to human health and the environment."
"The fracturing and 'flowback' fluids … contain a number of hazardous substances that, should they contaminate groundwater, are likely to result in potentially severe impacts on drinking water quality and/or surface waters/wetland habitats."…

… The Tyndall Centre has been able to identify at least some of the substances being injected into the rocks there. Of 260 chemicals, it finds that 58 give rise to concern. Some are known carcinogens, some are suspected carcinogens, some are toxic to people, some are toxic to aquatic life, some are mutagenic (which means they can cause genetic defects) and some have reproductive effects. (recorded cases of asthma, neurological diseases, nose bleeds)
The fluids returning to the surface carry not only the chemicals injected into the rocks, but also those picked up in travelling through them. Among these, the Tyndall report shows, are heavy metals and radioactive materials.
Both the fracking fluids and the flowback fluids can contaminate water either through the cracks forced open in the rocks by the fracking process, or through drilling bores through aquifers. In the US this has happened repeatedly. The Tyndall Centre found that water supplies have been contaminated not only by the fracking chemicals and dissolved pollutants from the rocks, but also by gas bubbling out through the cracks. The documentary Gasland shows people turning their taps on and setting light to the water. In some cases, gas bubbling up from underground fractures has caused explosions in the basements of people's homes.
Cuadrilla's bore passes through an aquifer before it reaches the shale formation. The company's chief executive told the Guardian: "You never have control. Fractures will always go into the path of least resistance."

…Greenhouse gases: The natural gas produced by fracking is the same simple chemical (methane) as the gas extracted by conventional means. When it is burnt, a given volume produces the same quantity of carbon dioxide as conventional gas does. Even so, the impact of shale gas on the atmosphere could be much greater than the impact of the same volume of conventional gas. Here's why.

… The journal Climatic Change, quotes that methane emissions from shale gas fracking, "are at least 30% more than and perhaps more than twice as great as those from conventional gas." This, it says, boosts the climate changing impact of shale gas to such an extent that it is not just worse than conventional supplies, but worse even than coal, which is the most carbon-intensive fossil fuel. The paper found that, per unit of energy released, burning shale gas produces between 120% and 200% of the emissions produced by burning coal.
The Tyndall Report says: "This will further reduce any slim possibility of maintaining global temperature changes at or below 2C (3.6F) and thereby increase the risk of entering a period of 'dangerous climate change'."
…Raising fossil fuel reserves: The Carbon Tracker Initiative worked out the proportion of current fossil fuel reserves that humanity can burn while keeping the chances of exceeding 2C of global warming to 20% or less. It found that current reserves contain roughly twice as much carbon as we can afford to release in the entire millennium.
Fossil fuel companies have already found far too much, in other words. It seems like madness to be prospecting for new reserves, especially new reserves with such a high potential to do harm, when we can't afford to use existing supplies.

I would prefer that Coal Seam extraction was simply not permitted in Australia. Science will hopefully make that a reality.
If it is here to stay, compliance and monitoring of sites must be rigidly controlled. Scientific data relating to fugitive emissions, as well as impacts on human health, water catchments, and the environment must be rigidly observed and assessed.

I don't know how coal seam gas in NSW compares with its operation in other states (such as Queensland) or internationally (such as the USA), but I do know there are an incredible number of licenses over areas of our best farmland (and we don't have an abundance of that in Australia) and in our best water catchment areas.
Fracking could well be a disaster for our country and cause much hardship for farmers - the growers of our food.

Please visit coal seam gas operations (such as drilling and fracking) in areas where the industry is most active (for example Camden, Gloucester, the Pilliga or Casino)

Please seek out or commission truly independent sources of information about this industry in order to develop fact sheets without reliance on industry information.

Sincerely

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