

Submission  
No 733

## INQUIRY INTO COAL SEAM GAS

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Partially Confidential

**SUBMISSION TO THE NSW LEGISLATIVE COUNCIL**  
**COAL SEAM GAS INQUIRY**

**7 September 2011**

I would like to thank the Committee for the opportunity to make a submission on this very important matter. I expect that there will be many submissions so I will restrict myself to only a few points which might not be raised by others.

Mining of coal seam gas (CSG) is potentially a very hazardous activity which may have serious long term negative impacts on the environment and on the health of people. It could contaminate and poison fresh water, both in subterranean aquifers and in drinking water supplies to cities and towns. Yet very little is known.

Regulatory authorities would not countenance for a second an application to release a new drug if so little were known about the effects of the drug. The negative effects of a drug can be discovered after only a small number of cases and the drug withdrawn. Contaminating the water supply for, say, Sydney might destroy the health of 10,000's of people (if not more) before the causes were recognised. Importantly there would be no way of removing the contamination from the water reservoirs. Such contamination could take place hundreds of miles from the reservoirs and take years to reach the reservoirs. So with our current state of knowledge, a contaminated aquifer could have serious health impacts on people at a great distance from the original site of the contamination and we would have no way of knowing where and when it occurred.

Australia has only about 5% of land suitable for food production and most of that is of low quality. But it is the only land we have on which to grow our food and that of our children, grandchildren and subsequent generations. CSG mining can contaminate the soil and the aquifers nourishing the soil. Such contamination could make the land unsuitable for food production for centuries or forever. It could have similar effects (or worse) to contamination by radiation from a meltdown of a nuclear power station.

It is clear that whatever economic and financial benefits the government and the state might obtain from CSG mining they could be far outweighed by the costs from the effects mentioned above. Taking a probabilistic view (as insurance analysts would): the risk weighed costs exceed the benefits.

CSG exploration and mining is a new activity and it is clear that our laws have not adequately considered, if at all, its potential impacts. Our current lack of knowledge about aquifers makes it impossible to make laws to adequately protect our people and our environment.

Some in the industry have made statements that NSW has enough CSG to last it a century. I have no idea how such an estimate can be made (as there has not been sufficient exploration). I suspect it is simply a figure that is "pulled out of the air" to promote acceptance of the industry's activities.

If that is the only quantity of CSG that we have then we should guard it jealously. A hundred years is a short period in human history: a child born today will probably live to 100. But in a hundred years time the gas will be very many times more valuable than it is today. By then we will most likely have sufficient knowledge about aquifers and technology would have advanced so much that we would be able to mine it safely. The gas will then be invaluable.

In "finance speak" the Net Present Value (NPV) of the resource is many times greater if it is left in the ground for 100 years rather than mined today (whatever realistic discount rates one uses). Of course, today that is of little value to a small exploration company but it is of enormous value to our people. It is the role and duty of our leaders to make decisions for the long term good of the people.

I have a number of other concerns which will probably be aired in many submissions. The one that I think will prove to be most contentious is the rights of landowners. The vast majority of Australians

are unaware that they do not own the minerals under their land and that they have little control over their land when it concerns mining. I expect that this will change before too long. To many the expropriation by government of these property rights will remind them of the repressive regimes (including communist ones) from which they or their parents fled. They will be most unhappy to learn that similar things can happen to them here.

A CSG mine consists of hundreds of wells, storage tanks, compressor plants and hundreds of miles of pipes and roads. So it has hundreds of potential fire hazards and hundreds of sources of leakages of methane gas. Methane has a global warming potential 72 times that of carbon dioxide. Unlike carbon dioxide it is not used to grow plants. So it is not all clear to me that CSG is a more environmentally friendly source of energy than coal (of which NSW has ample supply).

Finally, if I may, I would like to make a few suggestions about immediate actions that the government should take.

- . That fresh water and land suitable for food production be recognised in law as being of primary importance.

- . All mining of CSG be immediately banned. To my knowledge, there is only one such mine in NSW, near Camden, and I understand that it has already caused serious pollution of the environment. That should be sufficient to avoid or minimise any compensation claims.

- . All CSG exploration be banned unless it can be shown conclusively that it is perfectly safe. All exploration holes be appropriately filled once the required information is obtained. No new exploration permits be issued. CSG exploration near cities and towns and on agricultural land be banned.

- . The rights of land owners be strengthened and their costs of negotiating, etc with exploration companies be paid by the companies.

- . Register of access fees, etc paid to landowners be kept (and made public) so that there is an informed market.