

**Submission
No 869**

INQUIRY INTO COAL SEAM GAS

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**NSW Legislative Council
General Purpose Standing Committee No 5**

INQUIRY INTO COAL SEAM GAS

This submission is written by a concerned resident, land owner, and primary producer situated on NSW PEL 462, who is also an extremely concerned citizen, for the future of Tooraweenah, New South Wales and Australia.

Contributions have also previously been sent to:

1. *NSW Coal & Gas Strategy – Scoping Paper – Dec 2010 and*
2. *SENATE INQUIRY: Rural Affairs and Transport References Committee Inquiry into Management of the Murray Darling Basin. Submitted 13 July 2011*

These two public consultations have already aggregated large volumes of relevant objective data and anecdotal information from interested parties across Australia and this NSW Inquiry is requested to draw on **all** sources of pertinent information, including those above, in addition to the submissions submitted directly to it.

Comments here will be based on personal experience as the resources are not at hand to compile original statistics. However a wealth of objective information has already been accumulated, which will undoubtedly be reported to the NSW Inquiry by the many and varied interested groups and organisations which have diligently collated it. Standing Committee members are implored to **act wisely** after assessing it.

Firstly, and very importantly, PLEASE NOTE that all private submissions come at great cost of personal time, effort and expense. Coal seam gas companies go about their business and defend their positions in well paid time. Standing Committee members sit (as far as I know) in a paid capacity. With this in mind, please attribute just weight to the input of motivated, dedicated, unpaid citizens, when carrying out your judicious assessment.

This submission will attempt to address some of the issues as outlined in the terms of reference following:

INQUIRY INTO COAL SEAM GAS

TERMS OF REFERENCE

That General Purpose Standing Committee No. 5 inquire into and report on the environmental, economic and social impacts of coal seam gas (CSG) activities, including exploration and commercial extraction activities, allowable under the NSW Petroleum (Onshore) Act 1991 (the Act), and in particular:

1. The environmental and health impact of CSG activities including the:
 - a. Effect on ground and surface water systems,
 - b. Effects related to the use of chemicals,
 - c. Effects related to hydraulic fracturing,
 - d. Effect on Crown Lands including travelling stock routes and State forests,
 - e. Nature and effectiveness of remediation required under the Act,
 - f. Effect on greenhouse gas and other emissions,
 - g. Relative air quality and environmental impacts compared to alternative fossil fuels.
2. The economic and social implications of CSG activities including those which affect:
 - a. Legal rights of property owners and property values,
 - b. Food security and agricultural activity,
 - c. Regional development, investment and employment, and State competitiveness,

- d. Royalties payable to the State,
 - e. Local Government including provision of local/regional infrastructure and local planning control mechanisms.
3. The role of CSG in meeting the future energy needs of NSW including the:
 - a. Nature and extent of CSG demand and supply,
 - b. Relative whole-of-lifecycle emission intensity of CSG versus other energy sources,
 - c. Dependence of industry on CSG for non-energy needs (eg. chemical manufacture),
 - d. Installed and availability costs of CSG versus other stationary energy sources,
 - e. Proportion of NSW energy needs which should be base load or peaking supply and the extent to which CSG is needed for that purpose,
 - f. Contribution of CSG to energy security and as a transport fuel.
 4. The interaction of the Act with other legislation and regulations, including the Land Acquisition (Just Terms Compensation) Act 1991.
 5. The impact similar industries have had in other jurisdictions.

Introduction

Coal seam gas is purported to be cleaner than coal (unmeasured fugitive emissions give rise to doubt about this assertion) but it is still a carbon based fuel creating CO² emissions. From the NSW Department of Planning scoping paper presented in Dec 2010, for comment by the NSW public, the place of coal and coal seam gas in the future NSW economy is not in question. Why is this so? The national aim for the future should be for a reduction in reliance on fossil fuels. The biosphere contains carbon in greenhouse gas forms in larger quantities than optimal. It is beyond belief that the NSW government and the Federal Government want to **accelerate** the rapid expansion of coal and gas mining, leading to the addition of more carbon into the biosphere, ultimately to become additional greenhouse gases. In the face of an imminent carbon tax it is hypocrisy in the extreme.

There is no quick way to replace Australia's reliance on carbon based power plants in the short term. But to find that Governments accept without question, the IEA, World Energy Outlook 2009 forecast for 2030, is hugely disappointing. This shows coal virtually static at 38% and gas climbing to 30%; 68% total. Keeping in mind the rapidly increasing world demand for energy, these percentages in 2030 will be of **vastly increased absolute volumes of fuel, which is sheer lunacy.**

Forecast sources of energy to 2030

Fuel Source	2002	2030
Coal	39%	38%
Gas	19%	30%
Nuclear	17%	9%
Hydro	16%	13%
Oil	7%	4%
Other*	2%	6%

Other = solar, wind, renewables, geothermal, waste
 Source: IEA, World Energy Outlook 2009

Addressing the Inquiry Headings:

- 1(a – e) Experience of coal seam gas exploration and mining at “Tara”, Tooraweenah is limited to:
 - core holes drilled on two neighbouring properties
 - seismic testing along local public roadways
 - several public meetings, two of which Santos has attended.

The outcome of this relatively benign activity so far has been

- a steep learning curve for local residents about the potential pros and cons of coal seam gas drilling both short and long term. This equates to large amounts of time not carrying out normal farm activities and/or reduced discretionary time (of which farmers have little)
- anxiety about instant dropping of land values due to PEL activity,
- angst regarding potential lost productivity, or inability to remain on properties should ground water be contaminated or depleted (possibly destroyed) if exploration and mining progress
- uncertainty about continued ability to manage land as preferred, particularly with respect to large farming equipment, limited by labyrinths of pipelines, roads and pumping stations
- uncertainty to invest in planned developments
- fear of unknown geological stability should fracking be used in the wells
- fear of human and livestock health issues

All of these points arise from investigating previous experiences of coal seam gas mining in the USA and in Queensland and to a small extent in NSW. The evidence and resultant doubts about the industry's ability to operate competently and in unison with current land uses are well documented and available to this Inquiry and will not be covered here. (Refer to the two previous consultative processes listed above on Page 1.)

With regard to "Nature and effectiveness of remediation required under the Act" it is a moot point. No regulation written by man can include remediation techniques that can successfully remediate drained and or contaminated aquifers. Santos (meeting in Tooraweenah 12 April 2011) gave sincere undertakings to "make good" any compromised water supply in our district in the unlikely event that their stringent, unfailing processes fall short. They would truck water in (from where?) and do whatever was required under the regulations. This is completely unsatisfactory. Zero risk to water supplies must be demonstrated by the proponents of the mining and if this is not possible then processes must be developed to decide clearly, the land use that is to exist in that area with the possibility that water resources will be compromised. It cannot be left to chance or the mining companies to decide.

1 (f) is mentioned in the Introduction and 1(g) is not addressed here.

2 (a-e) It is clear that mining rights outweigh freehold land ownership rights in NSW. At present the landholder can only negotiate to a limited degree in the drafting of the Access Agreement that the mining company has over his/her property and this can be an expensive operation requiring legal advice to ensure the landholder's wishes are well protected. Only legislation can change this and so again the NSW Government must adopt a process to enable wise decisions about what land use is optimal with the following in mind:

- food security for Australia is paramount. Agricultural land MUST be preserved in tact with its associated water resources
- mining is short term, agriculture is long term
- mineral resources are finite
- is export revenue gained substantial enough to outweigh conserving the mined resource for future use in Australia?
- Is the NSW 5 year moratorium on CSG royalties really necessary to attract development and even if so is it prudent considering the potential long term damage? There are massive financial gains available to the mostly foreign owned companies for no gain, in fact, likely reduced land production output for NSW. This makes no sense.

There has been so much "spin" and variability on the figures of jobs created and wealth generated by the CSG industry, depending from which side of the fence the figures emanate, that this Inquiry must endeavour to source independent, unbiased (and therefore not Government derived) data for these areas.

There appears to be some conjecture about rights of local governments over mining land use in their jurisdiction. This was made apparent by differing views expressed at the Federal Senate inquiry hearing in Narrabri on August 2nd both on and off the record. Regardless of the current situation, logic should dictate that

a mining company making heavy use of local roads and facilities should be contributing commensurately and not degrading the facilities of the rate payers who have to move over for the heavy users and pay for their damage as well.

3. (a-f) This submission is unable to deal with the relative merits of alternate energy sources.

However the long term aim should be to limit the extraction of carbon based fuels as much as possible for the supply of energy for Australians into the future. The comparative advantage of coal seam gas (all extraction negatives ignored) over coal has been questioned above due to unmonitored fugitive emissions. Unequivocal, real supply chain data (as opposed to theoretical data) is required to assess existence and size of relative advantages of fuel supplies for power. Extraction and supply should be rigorously monitored to optimise any chosen system.

4. The interaction of the Act with other legislation and regulations, including the Land Acquisition (Just Terms Compensation) Act 1991. – not able to address this here.

5. The impact similar industries have had in other jurisdictions. (Effects of Coal Seam Gas mining are well documented. E.g. refer to the two previous consultative processes listed above on Page 1 and Gaslands the documentary by Josh Fox detailing the US experience.)

SOLUTION

The goal must be to extract coal seam gas without creating any problems for future Australians.

Currently, the NSW coal seam gas mining industry is developing at an ever accelerating rate in the absence of sensible, relevant legislation that protects other justified, essential land uses such as agriculture and environmental health preservation. The two main NSW acts currently in operation for the control of Coal Seam Gas mining are The Mining Act 1992 and The Petroleum (Onshore Act) 1991. Neither of these is recent enough to include all aspects relevant to modern Coal Seam Gas mining. Clearly the NSW Government must address this and as soon as possible.

Ideally, the proponents of coal seam gas mining should be requested to model the short, medium and long term outcomes of their activities with relation to the three important criteria of economics, social impact and environmental impact. The modelling should be used not to forecast, but to produce credible scenarios. Publish the results of the modelling widely among the players in the industry and the residents and others affected in the areas where gas may be found. Define communities of common interest by using geological criteria and discuss with the people in them the application of the models to their area.

- Reach a shared understanding of the relevant modelling.
- Establish what the real concerns are of both communities and gas extraction entities.
- Invite contributions to develop methods to extract gas *and* remove the issues of concern.

Conclusions reached in various areas may differ because of technical factors and differing community attitudes. Using an iterative process of discussion among representative members of interest groups, decide what is desirable and practicable and what is not. Draft rules, guidelines, compensation arrangements, incentive offers and any other administrative structures required to enable implementation of chosen solutions. Repeat the process as new issues are identified.

It is likely that a novel structure and system will be required to do these things. The best minds available should be used to create the detailed processes to be used. The steps outlined above cannot be implemented using adversarial approaches. The relatively short-term populist inclinations of politicians are also not of much value. These factors should be rolled into the discussions proposed above so that a result that is not mediation, not compromise but a genuinely fresh, comprehensive creation of a future vision for the areas of Australia, underlain by gas, is achieved.

Extracting coal seam gas while enhancing other activities in rural Australia will require intelligence, courage, integrity, pragmatism applied to a vision of the future that is esteemed by those who dwell there. In other words, it requires leadership. Please select carefully the people who are to run the process.

Agricultural land and the water that sustains it MUST BE SAFEGUARDED for the future.

Food for thought - You can't drink or eat, energy or money.