

Submission
No 368

INQUIRY INTO COAL SEAM GAS

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Submission to NSW Legislative Council Inquiry into Coal Seam Gas

Friends of the Pilliga is a community group based around Coonabarabran, NSW. We have developed a particular interest in the proposal by Eastern Star Gas to develop a gas field of over 1000 wells in the north east Pilliga, part of the Murray Darling Basin, and a known recharge area for the Great Artesian Basin. The Pilliga is also the largest remaining dry temperate forest west of the Great Dividing Range, home to many threatened species, some of which are IUCN Red-Listed.

We understand that the focus of concern so far has been on highly productive private agricultural land but consider that impacts on high conservation value natural areas, both public and private, by projected coal seam gas developments are equally worrying.

We welcome this opportunity to make a submission under the broad terms of reference of the above inquiry. However this inquiry should not be seen as a way of delaying decisions regarding coal seam gas extraction while it is 'business as usual' for the industry. We therefore request a complete moratorium on drilling for exploration, pilot plants or production until after the findings of the inquiry have been released and full environmental, social and health impacts have been completely assessed.

Should the enquiry take personal presentations from the community we would welcome that opportunity.

1. The environmental and health impact of CSG activities

a. Effect on ground and surface water systems.

Ground water and surface water are impacted by CSG activities both during drilling and extraction processes. Large amounts of water required for the drilling and fracking of each well would come from shallow aquifers, drawing them down and having effects well beyond the drill site. The water of the MDB is already overallocated. There is no spare water for this purpose.

The Pilliga is a recognised intake site for the GAB. This use of water may impact on the ability of the GAB to provide uncontaminated water well into the future.

Water produced in the extraction process contains many impurities. Promised processes of purification produce some cleaner water and some concentrated contaminants. The problem of disposal of the contaminants has not been satisfactorily addressed.

Spillage of 'produced' water has occurred in the past in the Pilliga leading to extensive areas of tree death. Examination of more recent drilling sites indicates that this problem continues to occur. Water from the wells is still being released into the bush.

The discharge of large quantities of even 'clean' water into a normally ephemeral creek-line would have long-term impacts on the natural ecosystems of the area. Eastern Star Gas is already discharging 'treated' water into Bohena Creek. This may have short-term benefits but deleterious future effects on groundwater dependent ecosystems and the normal functioning of the creek.

b. Effects related to the use of chemicals

The analysis data released by Eastern Star Gas in a submission in 2009 to the Standing Committee on Environment, Communication and the Arts is inadequate, consisting mainly of an analysis of negative and positive ions. There is no reference to hydrocarbons, especially the carcinogenic cyclic

compounds.

c. Effects related to hydraulic fracturing,

The debate on hydraulic fracturing is a red herring. The bedding in the Pilliga seems to make it unnecessary there. However, while companies may deny they intend to use it now, they are just as likely to use it in the future should the need arise.

All chemicals for both drilling and fracking should be properly assessed by the chemical regulator before they can be approved.

d. Effect on Crown Lands including travelling stock routes and State forests,

This is the first such development proposed for natural areas in Australia and the largest in New South Wales. Unspoilt natural areas world-wide are under threat of development while their value increases because of their increasing rarity. Such areas are increasingly unique and should be protected for their intrinsic value not developed for short-term profit. Public lands of all descriptions may have key high conservation value and thus be important environmentally.

While the individual areas impacted may be quite small, the cumulative impacts of well heads, pipelines, roads, treatment plants and miners accommodation would cause fragmentation over the entire project area. The impacts of fragmentation on habitats and on endangered species is well documented.

As previously mentioned wetland systems are at risk, even those which may be some distance from the actual extraction site, while-ever that are hydrologically connected.

Additional values of Travelling Stock Routes lie in their importance in connection between larger remnant areas. This will be increasingly important in adaptation to climate change.

State Forests have been set aside from private land for more than just timber harvesting. Historically they have also been for the purposes of conservation. Under the Brigalow Act, the forests of the Pilliga are classified as CCA Zone 4. This means that they can be used for a number of purposes, specifically timber harvesting but also recreation, conservation and mining. While-ever mining is given priority, such as in the Pilliga and in Leard State Forest, recreation and conservation cannot take place. They are mutually exclusive. The apiary industry is similarly threatened.

I understand that under legislation Forests NSW is in no position to set conditions of mining or exploration activities.

Similarly mining has access to State Conservation Areas, NPWS reserves. Apparently, although ministerial approval is required for mining access, NPWS cannot set conditions either.

The Pilliga is a highly fire-prone region with major wildfires approximately every 7 years and smaller bushfires every summer. Coal Seam Methane is highly flammable and must either be flared (burnt) or vented to atmosphere on occasion. There have been no studies of the impact on well heads of lightning strikes, very common in the Pilliga in summer. Increasing risk of fire must be considered.

e. Nature and effectiveness of remediation required under the Act,

This industry cannot be relied on to remediate areas after they have finished with them. The Pilliga is littered with old well sites that are still as bare as when they were producing. Each well pad has

been cleared to sub-soil and the exposed area hardened by the passage of countless vehicles. Spills have contaminated the area. Even when the topsoil is returned to the site, the rehabilitation success rate is poor and bare pads remain in the forest long after the company has gone.

f. Effect on greenhouse gas and other emissions, relative air quality and environmental impacts compared to alternative fossil fuels.

Coal Seam Gas is still a fossil fuel. It produces less greenhouse gases when burnt than coal. However, if released into the atmosphere it is at least 20 times more damaging than carbon dioxide. Fugitive emissions are inevitable. CSG is not a solution to climate change or even a transitional arrangement to a less fossil fuel dependent future. A 3% methane leakage rate cancels any greenhouse gas emissions advantage claimed for CSG over coal. However CSG is not replacing coal but being used in addition to coal.

2. The economic and social implications of CSG activities

a. Legal rights of property owners and property values,

We, the public, have a right to expect the maintenance of the value of natural areas. It is not just private property that is under threat.

Public and private landholders need to have the right to refuse access to CSG companies.

b. Food security and agricultural activity,

The pipelines to deliver CSG to markets will cross prime agricultural land, whether north under Santos or south-east under Eastern Star Gas. This increases the likelihood of erosion problems which have already occurred near Mullaley.

Once the extraction industry has finished in the Pilliga there will be a need not to waste all that infrastructure. The wells will then follow the coal seams beyond bushland and into the farmland to the east and to the north.

It is not just prime agricultural land which is under threat. All productive land is of value, whether for grazing, organic farming, tourism, apiary, vineyards and orchards.

c. Regional development, investment and employment, and State competitiveness,

This may seem like regional development and hundreds of jobs are promised. The Eastern Star Gas proposal indicates the development of a large associated camp facility. This surely implies the use of a fly-in/fly-out workforce with specialised skills. It is well known that these people contribute little to the economies of regional towns. There will be far fewer local jobs than are promised.

d. Royalties payable to the State,

We understand that royalties to the state are waived for the first 5 years of production from any well. That doesn't sound very sensible when this is a billion dollar industry using public land to make private profits. On the other hand, high license fees create an expectation that projects will be approved while failing to deliver sufficient funds to offset their impacts.

At least on private land there is the opportunity, however small, to negotiate with the extraction industry for a return to the landholder from each well. It seems that in the Pilliga there is no such

opportunity for Forests NSW.

And where is the return to the public for the loss of amenity of public land being turned into an industrial landscape?

e. Local Government including provision of local/regional infrastructure and local planning control mechanisms.

The burden of providing roads, airports, water and other infrastructure will fall on the local community while the profits will go to the shareholders. There will be little return from this public asset for the average taxpayer.

3. The role of CSG in meeting the future energy needs of NSW

a. Nature and extent of CSG demand and supply,

This is not replacing coal as the primary source of energy for electricity generation in NSW. 90% of this gas will go to cheap export. Only 10% will be used in electricity generation in NSW.

The need for increased supply is based on expectations for and encouragement of increased demand. A sustainable future should address decreasing usage not just increasing supply.

b. Relative whole-of-lifecycle emission intensity of CSG versus other energy sources,

This is insufficiently well understood. In the USA it appears that there are huge incidental releases of gases into the atmosphere.

The four industries contributing most to greenhouse gases are steel, paper, aluminium and concrete. Both steel and concrete will be needed in large quantities by this industry.

This massive explosion in plans for CSG production is delaying the transition to renewable energy alternatives. Tax breaks and subsidies would be better directed to genuine renewable energy sources. The potential for solar thermal electricity generation is huge in this region.

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 baseload or peaking supply and the extent to which CSG is needed for that purpose,

It is a fallacy that baseload electricity cannot be provided from renewable sources. Clever new technologies are increasingly becoming available.

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.

We understand that CSG mining is exempt from a number of important environmental statutes including the Native Vegetation Act. This is a major bone of contention for private landholders. Not only is this unfair, it mitigates against genuine management of native vegetation for conservation.

Legislation which allows almost unlimited access to State Forests, Travelling Stock Routes and especially State Conservation Areas, unfairly favours extraction industries over other more sustainable industries such as tourism and apiary and conservation in general. This gives public land over to one industry exclusively for private profit.

Monitoring of developments has, so far, been completely inadequate. Gas leaks go unchecked for months at a time. Rehabilitation is ineffective. Water overflows happen at every well head. Water sumps are undersize for expected production. Contaminated water is discharged continuously into ephemeral creeklines.

Production from wells has commenced illegally while they still only under exploration or pilot plant license.

Coal seam gas exploration and mining should be made subject to all relevant environmental legislation. Constant monitoring of activities should happen and the results must be available to the whole community.

5. The impact similar industries have had in other jurisdictions.

Problems have been found with this industry in many overseas jurisdictions. Fracking has been banned in France. Not all the claims put forward in Gaslands are unsubstantiated. Regular fires are associated with these wells, groundwater has been contaminated, earthquakes are more frequent in CSG areas.

In Queensland there have been similar problems. And the social costs of this industry on smaller communities is huge.

In conclusion,

The solution to our energy supply problems lies not in continuing as we have so far but in changing the way society thinks about it, in looking at innovative alternatives rather than more of the same.

Not enough is known yet about this industry and its impacts. Before it is allowed to take off in NSW all environmental, social and health impacts must be rigorously and independently assessed. While these assessments are taking place there must be a complete moratorium on all stages of development.

Jane Judd

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