Submission No 754

INQUIRY INTO COAL SEAM GAS

Name: Name suppressed

Date received: 7/10/2011

---

6 September 2011

The Director
General Purpose Standing Committee No.5
Parliament House
Macquarie St
Sydney NSW 2000
Fax: (02) 9230 2981

Dear Sirs/Madams,

Submission regarding coal seam gas extraction in NSW.

Thankyou for taking submissions regarding this new industry. I am a landholder in the water catchment area for Sydney. I note that France has banned fracking[1] and the United States has banned gas mining in the water catchment areas of New York City.[2]

Terms of reference 1: The environmental and health impact

Coal seam gas (csg) mining approvals are made on individual csg mining site applications, and there is no regulatory provision in the decision making process for consideration of the cumulative impact on a region. 70% of NSW is covered by coal seam gas (CSG) exploration or mining licenses. While each site can have a significant detrimental impact, it is the cumulative effect on a region, a community, an ecosystem or a water system that is most important. The cumulative impact of all of the mines in a region must be included in the legislation as a factor for consideration.

As yet the csg industry has not solved the problem of how to dispose of the waste water which is produced in the csg mining process. This water is a mix of salt and toxic chemicals that occur naturally in the coal seams in addition to chemicals added to induce the fractures in the rock seams under the ground. These chemicals will persist as environmental hazard.

The chemicals used in coal seam gas drilling or fracking are injurious to human health. As the interplay of the ground waters affected by the csg mining process is not understood it is too dangerous to allow the expansion of the industry in our water

---

[1] *MP's vote for shale gas fracking ban,* May 12 2011, The Connexion, http://www.connexionfrance.com/Shale-gas-drilling-ban-France-fracking-hydraulic-fracturing-12722-view-article.html

2 *Legal Questions Raised On New York's Gas-Drilling Rules,* Huff Post New York 6 September 2011, http://www.huffingtonpost.com/2011/07/12/new-york-fracking_n_895531.html accessed 6 September 2011

catchment and food production areas, and is probably too hazardous to allow in anywhere due to the possible impacts on human and biodiversity health.

There have been repeated contaminations of ground water around the world, including in the USA and many times in Queensland[3]. These are instances in which the damage has been detected and reported. These areas will need to be quarantined and attempts will be made to clean up the problem, however how is underground water cleaned up? There are probably many more incidents that are not detected or reported.

There is potential for drawdown and contamination of groundwater aquifers, including potential for major cumulative impacts on the Great Artesian Basin. The industry uses huge volumes of water for drilling and fracking in water systems, putting strain on water systems that are already over-allocated, such as the Murray-Darling Basin.

The environmental and health impacts of coal seam gas mining are too dangerous to allow to continue in the absence of more research and development of safer techniques.

Terms of reference 2: Economic and social implications

Social impacts:

The NSW community does not support the present rapid expansion of this industry. The continued expansion of coal seam gas extraction will lead to widespread social discontent because 70 % of NSW is now covered by either CSG exploration licenses or CSG mining licenses.

The imposition of the industry into our urban and rural areas is politicizing communities that have never been activated before. Enforcing compliance will be

---

[3] ***Eg Origin stops coal seam gas drilling after chemicals found in water Ben Cubby*** *October 21, 2010* http://www.smh.com.au/environment/energy-smart/origin-stops-coal-seam-gas-drilling-after-chemicals-found-in-water-20101020-16ud7.html *accessed 6 September 2011* **and** Another gas contamination scare for Qld Brisbane Times *July 31, 2010* http://www.brisbanetimes.com.au/queensland/another-gas-contamination-scare-for-qld-20100730-10zo2.html; *and* Coal gas company banned in Queensland for contaminating groundwater July 08, 2011 The Wall Street Journalhttp://www.theaustralian.com.au/business/mining-energy/coal-gas-company-banned-in-queensland-for-contaminating-groundwater/story-e6frg9df-1226090511694 accessed 6 September 2011; *and* Carcinogens found in water at coal seam gas site Brisbane Times Kym Agius *August 29, 2011* ***http://www.brisbanetimes.com.au/queensland/carcinogens-found-in-water-at-coal-seam-gas-site-20110829-1jgxb.html***

difficult due to civil disobedience actions by the communities that are affected. In countries in Europe the conflict between gas miners and the community has led to frequent criminal damage of mining company property by otherwise law abiding communities[4].

The friction of the industry with the community will lead to significant social and economic detriment. It will increase business costs and lead to significant administrative problems for the government.

There is currently no trust or respect between the communities and the CSG mining companies. The community is entitled to understand and know what to expect, however the mining companies operate in secrecy. Local Government and local communities are currently largely excluded from the planning process and public participation and legal standing is inadequate.

Even the Department of Primary Industries is not informed by the mining companies of the locations of proposed drilling within the exploration areas, and any agreements that are made with landholders usually include confidentiality clauses, so that neighbours are not aware of the intrusion of the mining into their area until it is established. This gives the impression that the mining companies are operating by stealth, without transparency. The companies are not having open and constructive consultation with the communities in areas that they seek to mine. This also causes fractures in communities where individual landholders have granted access without reference to neighbours and communities.

Government's role as regulator of the industry must give weight to the impact on the communities that the government represents. There is a deep sense of loss and fear of the changes accompanying the intrusion of coal seam gas mining into communities. It is important not to have just superficial understanding of what it means to the communities. Landholders face the prospect of losing control of their land. Property values are lost and sale of the properties is very difficult after exploration licences are issued.

The cohesion of communities is destroyed when itinerant workers are brought in because they do not become integrated into the communities. There is pressure on housing and rental costs rise. There are increased levels of violence and crime due to alcohol abuse by the workers who are usually not accompanied by their families.

Economic impacts:

Coal seam gas mining is not the economic prize that it first appears. The associated costs for the communities include degradation of the roads and infrastructure which is a cost to the taxpayer. Farm infrastructure is often damaged.

Landholders cannot deny access to a miner under NSW law. Mining companies can enforce their right by taking a landholder to arbitration then to court if they are

---

[4] Eg Court clears Shell for Sweden gas drilling Published: 19 Apr 10 http://www.thelocal.se/26160/20100419 accessed 6 Sept. 2011

refused access so access arrangements have to be made. The miners are therefore in a much more powerful position than the landholder in any negotiations. This is not fair.

There is no standard minimum price that the mining companies have to pay to landholders in compensation and many landholders are not aware of the impacts or the extent of the csg mining when they negotiate terms. They are often unable to negotiate terms that are practical or equitable. There should be minimum compensation, organizational and rehabilitation standards legislated to ensure that landholders are not exploited by the mining companies.

The csg industry claims that it can co exist with other industries. However it is clear that tourism cannot continue in areas where the csg mines are established because the drilling sites and the associated pipes, polluted water holding ponds and vegetation clearances are a blight on the scenery.

The burgeoning organic farming industry will be destroyed in csg mining areas because the standards required for organic certification cannot be met where there is the air and water pollution associated with the csg industry.

Graziers may be able to reach some agreement in relation to how they will be able to move their livestock around their farms. Their stock movement is limited as the graziers have to navigate the pipes, keep a watch on their fences and gates through which the workers come and go, to prevent their animals escaping. They have to ensure that their stock do not wander into the path of the mining company vehicles which come to and fro, hauling water and chemicals, drilling equipment, workers, and associated tools. Graziers' lives are complicated, stressful, dirty and noisy when csg mining is on their land.

Wide acre farmers have problems with moving their farming equipment around the pipes, polluted water holding ponds and drill sites, and have similar problems with noise, dirt, stress and complications.

Though the landholders may be accommodate the presence of the csg mines, both the short term impact and long term pollution consequences cannot be remedied. The most significant economic adverse impact is on future food security and potable water availability. At a time that the world is facing food shortages, with riots in some countries due to soaring food prices and shortages, this is not the time to damage our best agricultural land.

Term of Reference 3 future energy needs

The new coal seam gas industry puts into conflict policy objectives of maximising potential financial benefit for the state and protection of the public good. In delivering financial benefits it is likely that the risk of long term or permanent damage to the public good is an unacceptable risk. The royalties paid to the State are insufficient to offset the impact of csg mining.

There is no rush to extract the gas. It will still be there if we take time to study the science and possible short term and long term impacts.

Australia has the potential to be a leader in the expansion of solar energy and other renewable energies. Spain, with a similar climate, is currently the world leader, with massive solar thermal projects expansion with base load capacity, not only in Spain but Spanish solar thermal companies are also building in Algeria and Morocco to supply solar generated energy to Europe[5].

Western Australia has just announced the first 10 megawatt utility-scale PV project in Australia, 10 times larger than any other operating solar project in the country. "*"This announcement demonstrates the significant potential for renewable energy generation — especially utility-scale solar in WA and throughout Australia"*[6]

Australian solar technology which provides base load power has been exported to other countries but has been largely overlooked by Australia. For instance solar technology designed by Dr David Mills of Sydney University has been manufactured in Nevada USA from December 2007 by Ausra Inc. The Compact Linear Fresnel Reflector technology generates solar thermal power. Ausra's innovations in mirror systems have brought the price of solar power down to the level of gas-fired power and is expected soon to be price competitive with coal-fired power. That plant is expected to produce 700 MW a year in solar thermal power systems for the American Southwest.[7]

Ausra Inc. has been selected to supply the solar steam boiler supplier for the proposed 100 megawatt (MW) Concentrated Solar Thermal Power (CSP) plant currently under development in Maan in Jordan.[8]

A company called AREVA was awarded a major contract to install a solar thermal addition to CS Energy's coal-fired Kogan Creek power station in Queensland, Australia. This solar boost project, supported by the Australian and Queensland

---

[5] *New Technologies in Spain;Solar Energy, As researchers continue to explore new ways to promote and improve solar power, Spanish companies are becoming world leaders in this emerging field.* Technology Review, http://www.technologyreview.com/microsites/spain/solar/docs/TR_Spain_solar.pdf accessed 6 September 2011.

[6] *Western Australia's first utility-scale solar PV project under way*, 5 Sep 2011 Printed Electronics World. http://www.printedelectronicsworld.com/articles/western-australias-first-utility-scale-solar-pv-project-under-way-00003719.asp?sessionid=1 accessed 6 September 2011." GE Energy Financial Services, the project represents its first renewable energy investment in Australia, adding to its global portfolio of more than US$400 million of solar power equity and debt investments in 42 projects".

[7] Hansard: Senator Allison 2008. http://parlinfo.aph.gov.au/parlInfo/genpdf/chamber/hansards/2008-02-14/0051/hansard_frag.pdf;fileType=application%2Fpdf

[8] *US firm to bring new technology to Maan plant,* The Jordan Times 6 September 2011 **http://www.jordantimes.com/?news=20812&searchFor=ausra** accessed 6 September 2011

governments, will be the world's largest solar integration with a coal-fired power station adding up to 44 Megawatts of power.[9]

Renewable energy is viable and as indicated above is now as cost efficient as gas. The only way to deliver energy security is to switch to renewable energy now, particularly solar thermal. There are vast solar thermal resources in the major areas where CSG is now proposed, such as Narrabri and Moree. The massive expansion in coal seam gas production is delaying the transition to renewable energy alternatives.

We live in one of the driest countries in the world and the massive use and pollution of water that is entailed in the coal seam gas industry is not suitable for Australia. Our water is precious.

Coal seam gas is not required to meet the future energy needs of NSW. Most gas in NSW is extracted for export, not to meet local energy needs. If the coal seam gas industry is subjected to the same environmental laws and requirements as other industries, as it should be, it would not be as cost effective as the renewable energies.

There is a lack of information about the whole lifecycle emissions for CSG production. US studies suggests unconventional gas has huge fugitive emission impacts during its production. If these are costed under the proposed carbon tax then coal seam gas would be much more costly than the renewable energies. With the addition of future health system costs resulting from pollution of our agricultural land and water, the costs of allowing the expanision of coal seam gas mining in NSW are enormous and outweigh the short term state income.

Term of Reference 4 Interaction of the Act with other legislation and rgulations

Coal seam gas mining is exempt from a number of other environmental statutes, including the Native Vegetation Act 2003 and the Water Management Act 2000. Where a mining approval needs an Environment Protection License, or a clearing permit under the Native Vegetation Act or an approval from the Bush Fire Safety Authority under the Rural Fires Act, the current state legislation directs that the license cannot be refused. It is not subject to the legislative environmental constraints that we all take for granted.

If the csg industry should be subject to the same laws to protect the environment and water as the rest of the community. If this make the industry not sufficiently profitable then that is an indication that it should not proceed. The community should not be made to bear the burden of the costs to the environment, food and water to enable the companies to profit. Renewable technologies should be adopted instead of using gas.

Legislation controlling activities on public lands are inadequate to prevent coal seam

---

[9] Solar: Areva awarded a major contract in Australia 13 April 2011 http://www.areva.com/EN/news-8835/solar-areva-awarded-a-major-contract-in-australia.html accessed 6 Sept 2011

gas mining, which when approved effectively privatises public lands.

Interaction with federal legislation at the exploration phase is poorly understood and not enforced. There was extensive exploration in the Pilliga without getting federal government approval.

In its present form CSG mining will be a massive scourge which will be regretted for generations if it is allowed to continue without weight given to the importance of clean water, productive agricultural land and biodiversity protection.

There is no reason to rush into this expansion of the industry. The financial benefits must be weighed against the long term detrimental impact on the public good. Public good includes maintaining safe water for crops, stock and drinking, food security through protection of our agricultural lands, and health of the people and the environment.

I consider that the industry should be subject to the same environmental safeguards as the rest of the population, and that the risks to the public good are unacceptable.

Term of Reference 5 Other jurisdictions

As discussed above there have been many leaks and serious chemical contaminations from leaking wells of coal seam gas projects in Queensland. Reports from overseas indicate that these accidents are not unusual throughout the world

There have been regular fires associated with CSG wells, pipelines and facilities. The chemicals used in fracking have been shown to be toxic to humans. There has been systematic contamination of groundwater with methane and increased incidence of earthquakes after fracking.

Thankyou for considering these issues. I hope that the committee will give serious consideration to moving directly to facilitating the development of renewable energy in preference to allowing coal seam gas mining to expand in NSW.