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 Secretary,  
 Environment & Planning Committee Parliament House,  
 Spring Street, Melbourne VIC 3002

### **Submission: Inquiry into Unconventional Gas in Victoria**

I live in Bass Coast Shire and am totally supportive of, and grateful to, the Shire for its stance on the issue of mining, thus acting for its community in support of both its farmers, and its tourist image, both of which play a vital role in this region.

I have read and understood the breadth of the Terms of Reference for this Inquiry, and additionally attended the first of the two days of the Public Hearing in Sale to hear oral submissions and note comments and questions from the table.

I am answering the questions from the Terms of Reference that I have knowledge of, and can contribute to.

### **(2) the environmental, land productivity and public health risks, risk mitigations and residual risks of onshore unconventional gas activities**

#### **Environmental:**

The words “manage”, “minimise” and “mitigate” pepper any text concerning unconventional gas mining. Such mining is inherently dangerous and no amount of “minimising” will alter that fact: Mitigate is defined as making something bad less severe. If you buy into the argument that those opposing these technologies overplay their hand, then mining companies, in public, underplay theirs. You need to look elsewhere for some blunt assessment of risk.

Money raising via a share offer for ASX companies requires an investment prospectus approved by the ASX before being put out to investors. It has to include an evaluation to include Risk. This from such a prospectus from **Santos**:

#### *7.14 Environmental*

*Oil and gas exploration and production is an environmentally hazardous activity which may give rise to substantial costs for environmental rehabilitation, damage control and losses.*

And further, from a prospectus from **Planet Gas**:

*The exploration for and production of natural gas involves certain operating hazards, such as:*

*well blowouts;*

*craterings;*

*explosions;*

*uncontrollable flows of natural gas or well fluids;*

*fires;*  
*formations with abnormal pressures;*  
*pipeline ruptures or spills;*  
*pollution;*  
*releases of toxic gas; and*  
*other environmental hazards and risks.*

*Any of these hazards could cause Planet Gas to suffer substantial losses if they occur. Planet Gas may also be liable for environmental damage caused by previous owners of the property Planet Gas holds. As a result, substantial liabilities to third parties or governmental entities may be incurred, the payment of which could reduce or eliminate funds available for acquisitions, exploration and development or cause Planet Gas to suffer losses.*

Risk and Loss in any prospectus is of course only defined in terms of damage to the company's bottom line and losses sustained by investors. Mining companies are not caring philanthropists seeking to balance profit with environmental considerations, they are corporations seeking the maximum profit for their investors. But the risk isn't just their bottom line, it has much wider environmental consequences for communities.

At the first day of the Public Hearing at Sale, Council representatives were asked about any enquiries they had made concerning problems with unconventional mining in other States in the last four years (At this stage no transcript of proceedings is up on the website so this is my memory of the thrust of the question).

There are many examples that can be cited and which have received a lot of media attention, and though it adds to the length of this submission, the following may assist the Committee:

#### **CSG (Coal Seam Gas/Coal Bed Methane):**

Santos, AGL and Metgasco have all been found guilty of environmental damage and of failure on occasions to report it.

*Santos was found guilty last year of poisoning an aquifer in the Pillaga Forest NSW with radioactive uranium 20 times safe levels as well as toxic heavy metals. This followed fines in 2010 and 2011. There were other recorded leaks from all parts of the operations, from pipelines, the waste-water facilities and at well sites. This project is now mothballed. (Northern Rivers Echo 23rd January 2015)*

( Santos has offshore PELs in Gippsland and part owns the Orbost Gas Plant)

*AGL disposed of wastewater (from fracking) into the Hunter Water (Newcastle) sewage system in direct contravention of the written advice that Hunter Water was not to be approached as a disposal source. BTEX chemicals were reported in the flowback water shipments. Use of BTEX chemicals are banned for use in fracking in NSW. AGL has now sold back a gas exploration license to the NSW Government covering 6500km of NSW, including prime farm land and Sydney water catchments.*

*(The Sydney Morning Herald, 6 July 2015. The Australian, 6 July 2015; Sydney Morning Herald 20<sup>th</sup> January 2015; The Age 14<sup>th</sup> March 2015; Sydney Morning Herald 14<sup>th</sup> March 2015).*

**Metgasco** illegally disposed of wastewater from its coal seam gas exploration activities at the Casino Sewage Treatment Plant (STP) for almost a year. This wastewater disposal practice represented a violation of both the gas company's water management plan as well as the Richmond Valley Council's STP license. The Company also began fracking of four CSG wells near Gloucester in October last year before the company's monitoring of pollutants had been approved.

### **Leichardt Resources**

*"A \$100 company run by Brisbane lawyer in his spare time" (The Australian 1/10/2013). The NSW government, on the recommendation of the Office of Coal Seam Gas in a detailed Report dated 9<sup>th</sup> October 2014, revoked three licences held by Leichardt Resources because of a failure to fulfill its licence obligations. Three months later, Planet Gas, which had agreements with the Company, announced a withdrawal from CSG activities in NSW.*

**Leichardt Resources is currently shown to have an Exploration Licence application pending in Victoria. It is EL 5416 and takes in part of Bass Coast Shire. This application should be refused.**

### **UCG (Underground Coal gasification)**

**Linc Energy** has been linked to the pollution of 320 square kilometres of land (nr Chinchilla Qld) with carbon monoxide, hydrogen and hydrogen sulphide from an underground fire at the Plant. **It faces a \$32.5 million fine from the Queensland Government. Senior company executives face a maximum five year jail term for "wilful environmental damage". Some 20 families were affected.** The company began slowly disbanding the plant in November 2013. (Brisbane Times June 10<sup>th</sup> 2015).

**Cougar Energy(now Moreton Resources)** fined **\$75,000 for polluting Kingaroy groundwater with the rupture of a production well which resulted in groundwater contamination . (AMR 23 September 2013)** In this incident farmers were forced to temporarily withhold cattle from market because of unacceptable levels of chemicals in their system, and an exclusion zone was set up. The Company's operations were suspended in July 2010 and then finally cancelled. Four years later the EPA was still trying to get the site rehabilitated as was required in their Permit.

### **HEALTH RISKS:**

Extensive research has been carried out by Doctors For The Environment Australia (DEA) whose Scientific Committee includes eminent members such as Professor Ian Lowe AO, and Professor Emeritus Sir Gustav Nossal AC. The organisation wrote the DEA

submission to the Rural Affairs and Transport References Committee Inquiry and this detailed concerns on CSG mining, including the following summary points:

...Coal seam gas mining may have adverse impacts on human health by contamination of drinking and agricultural-use water, and air. Contaminants of concern include many of the chemicals used for fracking, as well as toxic substances produced through this process and mobilised from the sedimentary regions drilled.

...Some of these compounds can produce short-term health effects and some may contribute to systemic illness and/or cancer many years later. The public health consideration of these matters has been inadequate; leaving the population exposed to potential health hazards.

...Publicly available information on the chemicals used for this purpose in Australia is inadequate, as is their assessment and regulation.

... Evidence from several countries has shown that environmental exposures are occurring which may put people at risk, and these concerns have led to moratoria on further mining operations.

The Report was written in 2011 and DEA is still very actively engaged in this area.

GF320 FLIR (thermal imaging infrared) cameras can pick up both BTEX (which can naturally occur deep underground) and other gases as fugitive emissions from gas wells. Gas wells are not benign. There is plenty of evidence of people living near them being subject to health problems such as nosebleeds and headaches. The World Health Organisation names breathing in clean air an entitlement.

**(3) the coexistence of onshore unconventional gas activities with existing land and water uses, including — (a) agricultural production and domestic and export market requirements; (b) the legal rights of property owners and the impact on property values; and (c) any implications for local and regional development, investment and jobs;**

Unconventional gas mining is not compatible with agricultural production, particularly in Victoria where the land is quality and farming more intensive. . CSG for instance, by its very nature, requires wells varying from 150 metres to 750 metres approximately apart, with access tracks to service them. Large amounts of toxic waste water needs to be stored somewhere. Thus a grid of highly intensive industrialisation is created.

Compensation Agreements entered into with a CSG company will bind the land, impact its value (given that an Agreement sits over it) and alter and limit further uses.

Large successful farming operations necessarily carry large debt. Banks are no more philanthropic than mining companies, and any perception of loss of value could well cause a re-evaluation of agreements. Loss of income would be equally catastrophic unless matched by the Compensation Agreement. Will insurance cover for the farm still be offered?

A Study on the impact of the Coal Seam Gas Industry on land values in NSW February 2014 was prepared by Land and Property Information (a division of the Department of Finance and

services) for the Valuer General. The research, centred around Camden, near Sydney, noted that CSG activity on a property can result in impacts to the usable area, visual amenity, noise levels, access arrangements and that it could also impact on income. It also noted that perception of an issue, whether based on clear evidence or opinion, can impact property values.

It further states that the level of compensation (income) received by properties with CSG wells on them is likely to be a major factor on the impact to land value. The MRSDA requires that (Section 2 (iv)) just compensation is paid for the use of private land for exploration or mining. How exactly is this requirement assured given that the government then offers no part in any negotiations?

Mining companies come to an area bringing drilling rigs and their experienced workers. Local job creation, because it is seen as a driving factor for support of the industry, will always be overstated. Job creation figures are never supported by detail. Any jobs are also transient. The effect on the surrounding community in general is rarely positive.

**(4) the ability of potential onshore unconventional gas resources to contribute to the State's overall energy sources including — (a) an ability to provide a competitive source of energy and non energy inputs for Victorian industries; (b) an affordable energy source for domestic consumers; and (c) carbon dioxide emissions from these sources;**

APPEA recently responded to the East Coast Gas Inquiry Issues Paper 4 with a 22 page document (July 2015). It comes through as being querulous in pushing for less regulation of the industry and what it calls “inappropriate, inefficient and protectionist interventions in the domestic gas market” and “onerous regulatory restrictions” which are impeding gas supply. At a time when NSW has finally moved to apply restrictions and buy back or cancel Licences, APPEA wants Victoria to facilitate them.

At the same time it warns that “competitively priced energy is crucial to our everyday lives” and that “potentially low-cost gas cannot be accessed” it acknowledges that prices are unlikely to fall back to historic levels. It seems sensitive on the issue of domestic gas price rises, arguing that most are unrelated to the East Coast gas market to include exports, with the higher exploration onshore and development costs offshore a factor, along with higher labour and materials costs. If this is true, then the demand for domestic gas will decrease even more over time and cease to be a factor in the argument. There are alternatives.

On a personal level, I found the whole trust of the submission bullying and its arguments somewhat circular.

**(5) the resource knowledge requirements and policy and regulatory safeguards that would be necessary to enable exploration and development of onshore unconventional gas resources, including —**

**(a) further scientific work to inform the effective regulation of an onshore unconventional gas industry, including the role of industry and government, particularly in relation to rigorous monitoring and enforcement, and the effectiveness of impact mitigation responses; and**

**(b) performance standards for managing environmental and health risks, including water quality**

This question asks me to believe that unconventional gas mining can be made an acceptable risk through regulation and performance standards. I don't accept that proposition, and the performance of mining companies interstate, some examples of which I gave earlier in this submission, confirms that. Even if I accepted that unconventional gas mining is acceptable and that a high level of safety could be met (and again I don't) I would also need to have confidence in monitoring and enforcement. And here again we have the words "mitigation" and "managing". How do you mitigate chemical contamination of a major aquifer?

### **Conclusion**

The MRSDA Act Section 2A states in part: community wellbeing and welfare should be enhanced by following a path of economic development that safeguards the welfare of future generations.

I ask the Committee to accept that there is no social licence: community wellbeing and welfare would be affected by any facilitating of unconventional gas mining in Victoria. The very nature of the industry ensures that there are no safeguards that can guarantee the welfare of future generations.

Sarah Myhill  
10/7/2015

