

**Submission
No 887**

INQUIRY INTO COAL SEAM GAS

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Coal Seam Gas (CSG) Inquiry

To
The Honourable R.L. Brown, MLC, Chairman,
and other Honourable Members of the Standing Committee

1 Introduction

1.1 Thank you for considering this late submission to the NSW Legislative Council's General Purpose Standing Committee No 5 Inquiry into Coal Seam Gas (GPSC5). Given the lateness of my submission I will try to be as succinct and brief as the points I wish to raise will allow me.

1.2 The submission is late because I inhibited my earlier impulse to make one. This arose from my impression that the Inquiry's Terms of Reference (TOR) did not invite a comparison between CSG with renewable energy sources. It is true that TOR 3b invites a comparison between "CSG versus other energy sources" but this is only about "[r]elative whole-of-lifecycle emission intensity". TOR 1, which deals with environmental and health impacts, limits CSG comparison with other fossil fuels only. TOR 2 dealing with economical and social implications does not allow any comparison with any other energy source at all.

1.3 Given that the Inquiry is to turn on "environmental, economic and social impacts of coal seam gas (CSG) activities" (as stated in the Inquiry's referral preamble), I believe that the "in particular" requirements of TOR 1, 2 and 3 could have made an "in particular" express reference to renewable energy sources for comparison. This is especially so because renewable energy sources are a benchmark for pollution-free or low pollution energy and a new paradigm for social and economic impacts for the future in the ways that they create jobs, boost innovative technologies and, very importantly, involve consumer participation in energy generation (as in the example of residential solar panels feeding into energy grids).

1.4 I believe that had the comparisons between CSG and renewable energy sources been more expressly invited it would have had the following practical outcomes:

- a) more of the submissions would have addressed renewable energy in a substantial way rather than, perhaps, in passing rhetoric, and
- b) witnesses at hearings may be more minded and prepared to address such comparisons.

2. Taree Public Hearing and Comparison of CSG with Wind Power

2.1 I had the good fortune to be able to attend the GPSC5 Public Hearing at Taree. I have lived in a village at the mouth of the Manning River (the only true delta on the East Coast of Australia I am told) since leaving Sydney six years ago. (Other than my deep love of the natural beauty of this area my connection with it is strengthened because my wife's maternal ancestry goes back to the

early Irish and English settlers who arrived in the Manning Valley in the 1850's.)

2.2 I refer to the examination of the retired psychiatrist and resident of Gloucester, Dr Steve Robinson. In his examination of this witness, and on the subject of health impacts from the noise of CSG activity, the Honourable R.H. Burgess, MLC, asked (and I quote from page 47 of the official transcript),

The Hon. RICK COLLESS: Dr Robinson, following on from what the Chair was saying about the similar effect of wind farms, I was also on that Committee and we took a lot of evidence about the issue of infrasound, which you refer to in your submission. Could I ask you if that is a physical condition or is it purely a mental health condition that affects people, or is it both?

And the witness responds,

Dr ROBINSON: Well, it is both. As the frequency gets lower, it changes from an acoustic, a sound problem, into a vibration problem. So we cannot hear the very lowest frequencies of less than 20 cycles per second but the vibrations still cause problems and the body reacts.

2.3 That, to me, is evidence that the Standing Committee itself invited a comparison between CSG and a renewable energy source and this is enough for me to overcome my inhibition about making a submission on such a comparison.

2.4 While it may be interesting that both CSG and wind power may share attendant noise pollution, any inadvertent implication of parity between the two may be easily countered by a variety of points including that

- a) wind power technology does not threaten surface and ground water;
- b) wind power technology does not pollute the air;
- c) wind power technology is developing improvements to reduce noise pollution as evidenced by the successful innovation of Vertical Axis Wind Turbines (VAWT) which are claimed to be quieter than the more common Horizontal Axis Wind Turbines (HAWT). (*Wikipedia* has an accessible description of it at http://en.wikipedia.org/wiki/Vertical_axis_wind_turbine);
- d) should wind power technology be removed from a location, it does not leave an indelible long term obvious or occult scar on the landscape;
- e) wind as an energy source will not run out.

2.5 In contrast to the fact that wind is a power source that will not run out, CSG as a power source could easily run out. At the *Australian Petroleum Production & Exploration Association (APPEA)* website "We want CSG" it says that the **"CSIRO estimates Australia has more than 250 trillion cubic feet of CSG, enough to power a city of 5 million people for 1,000 years"** (<http://wewantcsg.com.au/coal-seam-gas>). This demonstrates that CSG is a finite resource and that CSIRO is able to quantify its limits on the basis of city demand.

2.6 For instance, applying the CSIRO estimate pro rata, it can be seen that the demand of 350 million city people could expend Australia's supply of CSG in about fourteen years. The extrapolation to 350 million is realistic if we add just the current populations of large Australian cities with those of India, South East Asia, China, Korea and Japan (selected from a list of the largest 100 cities in the world - see <http://www.worldatlas.com/citypops.htm>). And those foreign regions and countries are within the scope of the drivers for the exploitation of CSG because at the same page (<http://wewantcsg.com.au/coal-seam-gas>) the website says, "**And Australia is also building a multi-billion dollar export industry, meaning CSG will soon be helping reduce emissions in countries such as India, Japan, Korea, Malaysia, and China**". This potentially makes CSG a very short term, very transient power source with the potential need for expensive and onerous protections against long term negative environmental and health impacts.

2.7 I now refer to the *Doctors for the Environment Australia* (DEA) which describes itself as "a voluntary organisation of medical doctors in all states and territories" which works "to address the diseases – local, national and global – caused by damage to the earth's environment" (http://dea.org.au/about/file/our_vision). In February 2011, DEA made a Submission on "The Social and Economic Impact of Wind Farms" to the Australian Senate's Community Affairs Committee Inquiry. The Submission may be accessed via http://dea.org.au/images/uploads/submissions/Wind_farms_senate_sub_2011.pdf).

2.8 This DEA Submission is very impressive in its thorough discussion of the subject and I would respectfully draw this NSW Standing Committee's attention to it. To excite attention I quote the introductory paragraphs of its examination of wind power (from pages 4-5):

"As doctors, we are concerned with the health of populations and with the health of individuals. Recently increased media attention has focused on alleged adverse health effects from a small number of people living in close proximity to wind turbines. Wind energy has been widely established for some decades across many countries and populations, yet there have been relatively few reports of health problems in the scientific literature. It is important to understand the nature of the health concerns that have been expressed and try to meet the needs of people who feel their health is at risk. Of concern also is the potential for groups who are against wind power for ideological or economic reasons to promote misinformation and fear, thus compounding people's problems.

"DEA has explored the current literature in order to reach a conclusion as to whether there is evidence to support health concerns. DEA notes that a number of reviews have recently been conducted including the National Health and Medical Research Council in Australia (NHMRC 2010), the Chief Medical Officer of Health in Ontario (CMOH 2010) and the Chatham-Kent Public Health Unit (CKPHU 2008). These major reviews have all come to the conclusion that evidence does not support any direct causal link between wind turbine noise and pathological effects in humans."

3. Other Jurisdiction and Interaction with Other Legislation

3.1 In this Part I intend to advance the consideration for a NSW moratorium on all CSG exploration and mining and I will do so while turning my submission broadly on Terms of Reference (TOR) 4 and 5.

3.2 While the TOR5 reference to "other jurisdictions" would usually, and correctly, be taken to mean jurisdictions exclusive of NSW such as Queensland, Canada, USA, UK and so on, it would also be correct to consider the Commonwealth of Australia as another jurisdiction (Federal jurisdiction). This may appear unusual but it is nevertheless useful.

3.3 I note that we, in NSW, are concurrently under State and Federal jurisdictions (as are citizens in other States). This means that there are many areas of our lives in which both of them exercise some jurisdiction from different angles without conflict or in a complementary way. In other cases, where the subject or matter gives rise to a jurisdictional conflict it is resolved by a decision of the High Court - for example, *Commonwealth v Tasmania* (1983) regarding the Franklin Dam. There the Federal Government overcame Tasmania's challenge to the former's intervention on the basis of an implied reading of power in the face of the State claiming that the Commonwealth had no express power.

3.4. Right now, in NSW, as mining companies are on the ground legally exploring and developing CSG exploitation, the legal ground on which they tread may be about to fracture. For instance, in the Federal Parliament recently, Mr Tony Windsor, Member for New England, moved, and Mr Robert Oakeshott, Member for Lyne, seconded the introduction of the *Environment Protection and Biodiversity Conservation Amendment (Mining, Petroleum and Water Resources) Bill 2011*. The proposed legislation intends several things including the protection from negative "impact on the quality, structural integrity or hydraulic balance of a water resource" (clause 24G) and its definition of a water resource is impressive:

"(a) the whole or any part of a river, lake, aquifer or other place where water occurs naturally on or below the surface of the ground, whether permanently, seasonally or during unusually wet seasons; or

(b) any recharge zone or system for such a place" (refer clause 24F)

3.5 Even if this Bill fails it would be reasonable to expect other such movements in the Federal Parliament especially in the current controversy charged climate hovering over the CSG landscape. Should any of them succeed a situation with, at the very least, any or all of following may ensue,

- a) mining companies aborting some or all of their activities mid stream;
- b) mining companies purportedly unable to properly finance the necessary protections against pollution that they were required to put in place (finances that were to be derived from continued activity); and

c) complex legal wrangling about compensation.

3.6 It would be prudent for NSW to avoid such a chaotic situation. In my opinion, prudence in governance (parliamentary or executive) should err on the side of caution to avoid this and a moratorium on CSG exploration and mining until a co-operative relationship on the issue is settled between the States and the Commonwealth, could be a perfect expression of such prudence.

3.7 Such a settlement may involve reciprocal arrangements between the States and the Commonwealth (or complementary arrangements) which would be reflected in respective legislation and that is not an unusual thing in Australia.

3.8 These points are not underpinned by a personal view that favours the Federal over the State. After all, the NSW Constitution itself, recognizes the pre-eminence of Commonwealth powers and I refer to section 5 of the Constitution Act 1902 which begins,

"The Legislature shall, subject to the provisions of the Commonwealth of Australia Constitution Act, have power to make laws for the peace, welfare, and good government of New South Wales in all cases whatsoever

END of SUBMISSION