



**Submission to NSW Chief Scientist Review of CSG : Nimbin Environment Centre**

**Alan Roberts** to: csg.review

29/04/2013 09:13 AM

**Please respond to alan\_roberts**

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History: This message has been replied to and forwarded.

Dear Professor Mary O'Kane & team,

Attached is our submission to your review of CSG in NSW from the Nibin Environment Centre.

Please contact us if you would like further elaboration on any of the points made.

Yours Sincerely,  
Alan Roberts  
Secretary: Nimbin Environment Centre



NSWchiefScientistCSGreview1NEC.pdf



**Fwd: Re: Submission to NSW Chief Scientist Review of CSG : Nimbin Environment Centre**

**Alan Roberts** to: NSW Chief Scientist

27/04/2013 02:44 PM

**Please respond to alan\_roberts**

History: This message has been replied to and forwarded .

Dear Professor Mary O'Kane & team,

Please accept our apologies, in haste we overlooked an important reference, now attached.

It references to the following part of our submission:

" If the global warming effect of methane is evaluated over a 20 year time span it is from 79 to 105 times greater global warming effect than CO2 or over 100 year time span methane is from 26 to 42 times more global warming than CO2 "

Yours Sincerely,  
Alan Roberts

On 26/04/2013 8:07 PM, Alan Roberts wrote:

Dear Professor Mary O'Kane & team,

Attached is our submission to your review of CSG in NSW from the Nibin Environment Centre.

Please contact us if you would like further elaboration on any of the points made.

Yours Sincerely,  
Alan Roberts  
Secretary: Nimbin Environment Centre



Science-2009-Shindell-716-8.pdf

To:  
**Professor Mary O’Kane**  
NSW Chief Scientist and Engineer

From:  
**Nimbin Environment Centre,**  
54 Cullen St, Nimbin, NSW 2480. Ph 6689 1441

26 April 2013

## **Submission on the Review of coal seam gas activities in NSW**

Dear Professor Mary O’Kane,

The Terms of Reference for this review are based on a false premise, that premise being that there is any place at all for coal seam gas (CSG) as an energy source for NSW or anywhere.

Firstly, CSG is an unconventional gas and as such, with no room left in the atmosphere for more global warming gases, there is even less room for unconventional gases and especially when there is more conventional gas than humans can burn and still expect the planet to remain liveable.

Secondly, the life cycle green house gas emissions from mining, transporting and combusting CSG are greater than the life cycle GHG emissions from coal combustion.

If we are to keep global warming to less than 2K above the 1960-1980 average temperature then we must leave 80% (1) of conventional fossil carbon reserves unburnt in the ground. Considering the current change in climate, after only 0.8K of warming, from a predictable liveable climate to the effects of the insecure current climate with its more devastating more probable extremes, 2K of warming is definitely worth avoiding. To this end CSG is one of the fossil fuels that a sane civilisation would leave in the ground and thus subsequently bury all the concomitant horrors of CSG.

These other horrors of CSG are:

- CSG mining requires an invasion of private land effectively making the prior use unviable.
- Fresh water supplies, both groundwater and aquifers become polluted, (virtually guaranteed by the industry) by salts and volatile organic carbons (VOCs) from the water pumped out to depressurise the coal seam. The salts alone amount to millions of tonnes per year that then have to be safely sequestered from the rest of the environment. Floods in Qld (Tara) and NSW (Pilliga) have washed toxic CSG produced water down natural watercourses and the concentrated toxins from a breach in a reverse osmosis holding dam wall in the Pilliga killed vegetation along 4km of watercourse.
- The VOCs given off by condensation tanks, compressor stations, evaporation or holding ponds and other CSG infrastructure are a major source of respiratory, skin and eye irritation leading to residents in the CSG fields coughing up blood, nose bleeds, bleeding ears, skin rashes and so on. For health reasons people are forced to leave CSG fields or suffer chronic illness if they remain. No one ought to be expected to live in a CSG field. On top of that there are hormone disruptors found in these VOCs, of which it takes only minute quantities to cause long term effects (2).
- The dredging of the Gladstone harbour for LNG shipping and refrigeration plants has poisoned the sea, silted over the fringing reefs and destroyed reef fish nurseries in the harbour.

However those dire effects aside, back now to the main objection to CSG.

## **CSG is an Unjustifiable Fuel in a Global Warming Climate When There are Viable Alternatives**

If the global warming effect of methane is evaluated over a 20 year time span it is from 79 to 105 times greater global warming effect than CO<sub>2</sub> or over 100 year time span methane is from 26 to 42 times more global warming than CO<sub>2</sub>. Thus if about 3 to 4% of CSG production is fugitive emissions the whole life cycle GHG emissions are worse than coal.

Unfortunately there are many sources of fugitive emissions from CSG production. From the methane that comes up with the produced water and then the fracking fluid, the methane that escapes through natural faults and voids once the pressure from the in seam water is removed, designed leaks in the gas compressors, valves, condensation tanks etc, leaks in the LNG refrigerators and boil off gas on the LNG tanker ships. Measured fugitive emissions in the USA range as high as 9% of production and it appears that fugitive methane of a similar magnitude is escaping at Tara (3). And that is just in standard industry practice without including the seemingly regular blowouts and exploding pipes.

Of course CSG is a finite resource. The touted CSG reserves in Eastern Australia of 20EJ would run the planetary human demand for 2 weeks then it's gone, except for an extra 2ppm CO<sub>2e</sub> in the atmosphere.

NSW has no need for CSG. We have massive amounts of high quality enduring solar energy and wind resources that are cheap to exploit. Very, very cheap if the environmental advantages are taken into account.

Lets get NSW out of its fossil hole into the sunlight with solar thermal and wind energy systems.

Alan Roberts  
Nimbin Environment Centre (Secretary)  
[alan\\_roberts@ozemail.com.au](mailto:alan_roberts@ozemail.com.au)

### References:

1. <http://reneweconomy.com.au/2013/hsbc-world-is-hurting-towards-peak-planet-54114>
2. Dr Mariann Lloyd Smith, National Toxics Network. [www.ntn.org.au](http://www.ntn.org.au)
3. I Santos & D Maher, Southern Cross University.  
<http://www.climatechange.gov.au/government/submissions/closed-consultations/~//media/government/submissions/csg/CSG-20121109-CentreForCoastalBiogeochemistrySCU.pdf>