

To the Legislative Council's Environment and Planning Committee,

Thank you for the opportunity to write to you about my concerns regarding the unconventional gas (UCG) industry and the implications associated with it, if it becomes part of the Victorian economic, social and environmental landscape.

You could say that farming is in my blood - like most third or fourth generation Australians, my family was in the farming industry. As a young boy, I recall visiting my grand parents dairy farm in Northern NSW, in a place called Old Bar. I learnt about life on a farm at a young age. The plight of our farmers still gives me a surge of adrenalin, especially when I hear what they have to endure with regard to drought, floods, pests... you name it, they have suffered through it. To think that their farmland is now being threatened by the UCG industry, is deplorable.

I now live in Melbourne and enjoy the spoils our farming communities provide me by visiting my local farmer's market in St. Kilda and also in Collingwood. Locally grown produce, sourced from reputable farmers is something most of us take for granted. I, however, understand what it takes for my food to get from the paddock to my plate and I am very grateful for that process. I truly believe the UCG industry will have a detrimental impact on our agriculture, the land in which it grows on and the communities in which it supports.

I have outlined below my main hesitations regarding this industry and have endeavored to back up my perspective with statistics and reports written locally and from the United States of America and the United Kingdom. There is enough scientific evidence to know that this industry has had a devastating impact on farmland, rural communities, water ways and air quality across our planet.

In the interest of the Inquiry's process I shall address three of the 'Terms of Reference' directly:

**(1) The prospectivity of Victoria's geology for commercial sources of onshore unconventional gas;**

Victoria's hydrogeology is complex and fragile, with seams and aquifers being quite unique when compared to others across Australia. This diagram from SRW's hydrogeological mapping report<sup>1</sup> shows that the seams and aquifers have a complex and delicate hydrogeological relationship. The report states:

"The Latrobe Group comprises the most regionally extensive aquifer system in the Gippsland Basin...". p18

These aquifers provide Victorian farmers with water, Australia's single most precious and non-replaceable resource. Reports from NSW identify

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<sup>1</sup>[http://www.srw.com.au/Files/groundwater\\_maps/Hydrogeological\\_Mapping\\_Report.pdf](http://www.srw.com.au/Files/groundwater_maps/Hydrogeological_Mapping_Report.pdf)

water catchments being contaminated by the UCG industry<sup>2</sup>. There are better energy alternatives available to us, however, there are no water alternatives - once it's contaminated, it's lost. Jeopardizing the agriculture, farming, leisure (skiing, fishing) and tourism industries in Gippsland, for example, all for the sake of a non-renewable source of energy just doesn't make sense.

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

To put it simply, why risk the environment, the land and public health all for the sake of short term, cheap, non-renewable energy. There are ample studies, data and evidence that identified risks associated with this industry. In the United States of America, New York recently placed a permanent ban on this industry based on a report commissioned by the Department of Environmental Conservation<sup>3</sup>. In terms of environmental impacts on wetlands, similar to those in our Gippsland region, it states:

"Impacts to state- and federally-regulated wetlands can disrupt healthy ecosystems by jeopardizing essential breeding grounds for fish, birds, and other wildlife and by disrupting the flood control functions healthy wetlands provide. " p11.

With regard to public health risks, a recent crowd-funded project enabled Brian Monk, a farmer in Tara, QLD, to purchase a FLIR (forward looking infrared) camera. What he was able to record has yet to be verified, however, it opens up a whole new conversation around 'fugitive' gases<sup>4</sup>, their impact on bushfires and air toxicity - all of which the industry has not even begun to regulate according to a 2014 research paper by Southern Cross University<sup>5</sup>.

Also, Dr Geralyn McCarron identifies in her video<sup>6</sup>, the infant health impacts of UCG mining. She states:

"There are very significant studies concerning risks. A 2012 study from Cornell University<sup>7</sup> found that babies born within 2.5kms of a gas well had lower birth weight and more health problems than babies who were born within 2.5kms of a well that was planned but had not been drilled."

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<sup>2</sup> <http://www.smh.com.au/environment/water-issues/agl-suspends-csg-drilling-near-gloucester-after-chemical-find-20150128-12zc80.html>

<sup>3</sup>

[http://www.dec.ny.gov/docs/materials\\_minerals\\_pdf/findingstatevhf62015.pdf](http://www.dec.ny.gov/docs/materials_minerals_pdf/findingstatevhf62015.pdf)

<sup>4</sup> <https://www.youtube.com/watch?v=xzMSUufp5ek>

<sup>5</sup> <http://scu.edu.au/coastal-biogeochemistry/index.php/69>

<sup>6</sup> [https://www.youtube.com/watch?v=Kvfzz7\\_nbqs](https://www.youtube.com/watch?v=Kvfzz7_nbqs)

<sup>7</sup> <http://dyson.cornell.edu/research/researchpdf/wp/2012/Cornell-Dyson-wp1212.pdf>

My concern is that, unlike Queensland, Victoria is densely populated with an average of 24 people per sq. km. In fact, it is the most densely populated state in Australia, second only to the Australian Capital Territory<sup>8</sup>.

**(3) Coexistence of onshore unconventional gas activities with existing land and water uses, including:**

**a) agricultural production and domestic and export market requirements.**

From my understanding of dairy farming, taught to me by my grand parents, cows require a lot of land to graze and regular movement from paddock to paddock. The UCG industry hinders their movement because it constructs all weather access roads, cleared well pads, evaporation dams and compression stations (which run 24 hours a day, 7 days a week). All of which hinder the day-to-day operations of any dairy farmer. Why would we risk our precious farmland to this? In the 2011 NSW Inquiry into CSG, NORCO Co-operative Ltd felt the same<sup>9</sup> when it claimed:

“Our dairy farmers have made significant investments in their dairy businesses to supply high quality milk for their local markets. Dairy farms are highly developed businesses based around high productivity prime agricultural land. To take out one paddock of their operation for CSG could put the whole of their business at financial risk. We believe that gas exploration and extraction should not be allowed on prime agricultural land and nearly all dairy land would be classified as prime agricultural land. “ p.3

**b) The legal rights of property owners and the impact on property values;**

In June, 2015, the United Kingdom Government released a paper<sup>10</sup> on Shale Gas Rural Economy Impacts. The report states:

“As operations expand and new workers arrive into rural locations there may be a modest increase in demand for accommodation that could raise rents and cause affordability issues for rural residents seeking

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<http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1301.0~2012~Main%20Features~Geographic%20distribution%20of%20the%20population~49>

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[https://www.parliament.nsw.gov.au/prod/parliament/committee.nsf/0/655e358a9e5bfe60ca25790d0025b65f/\\$FILE/Submission%200336.pdf](https://www.parliament.nsw.gov.au/prod/parliament/committee.nsf/0/655e358a9e5bfe60ca25790d0025b65f/$FILE/Submission%200336.pdf)

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[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/440791/draft-shale-gas-rural-economy-impact-report.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/440791/draft-shale-gas-rural-economy-impact-report.pdf)

accommodation. ... On the other hand, those residents owning property close to the drilling site may suffer from lower resale prices due to the negative perception being located near the facility and potential risks.”  
p13/14

A 2010 study in Texas<sup>11</sup> concluded that ...”houses valued at more than \$250000 and within 1,000 feet of a well site saw their values decrease by 3 to 14%. Boxall et al. (2005) looked at the impact of property prices in Alberta Canada near sour gas wells and flaring oil batteries. They found a reduction in house prices of between 4% to 7% within 4 km of the wells. The results are statistically significant and robust.”

**c) Any implications for local and regional development, investment and jobs;**

A report<sup>12</sup> conducted by The Australian Petroleum Production & Exploration Association’s (APPEA) advises that the CSG industry, in 2011, employed 12113 people nationally. When compared to other long held, sustainable industries... well, there is no comparison. According to the Australian Bureau of Statistics, in 2011, there were 157 000 farmers across Australia<sup>13</sup>. In 2014, The East Gippsland Shire alone had 15999 local jobs<sup>14</sup>. Do we want to risk farmers’ land, jobs in tourism, hospitality and agriculture for this short term, unsustainable industry?

I would like to conclude my submission by calling on the Committee, Premier Daniel Andrews, the Minister for Energy and Resources, Hon Lily D’Ambrosio, and the Labor Government of Victoria to listen to the people it represents. There is no social license for this industry across Victoria. People in rural communities do not want it. With over 61 communities surveyed (all of which are threatened by exploratory licenses) and in excess of 90% of people within those communities declaring themselves gas field free, there is clear evidence that I am not on my own when it comes to supporting a permanent ban on unconventional gas mining in Victoria.

Finally, I would like to be considered to appear at a public hearing, preferably in Melbourne.

Yours Sincerely,

Michael Scott.

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<sup>11</sup> <http://www.environmentamerica.org/reports/ame/costs-fracking>

<sup>12</sup> [http://www.appea.com.au/media\\_release/new-csg-employment-statistics-show-record-numbers/](http://www.appea.com.au/media_release/new-csg-employment-statistics-show-record-numbers/)

<sup>13</sup>

<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Main+Features10Dec+2012#FARMERS%20IN>

<sup>14</sup> <http://economy.id.com.au/east-gippsland/local-jobs>