

Inquiry Name: Inquiry into Unconventional Gas in Victoria.

Dr Anthony Lunken  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

#### **SUBMISSION CONTENT:**

--

I thank you for the opportunity to contribute to your thinking on the future of unconventional gas mining in Victoria. I am now retired, but started my adult working life in the UK Meteorological Office before completing a PhD in Physics of the Environment. Although not continuing my career as a meteorologist I have maintained an interest in weather and climate and observed changes in climate directly while living in UK and Australia. I am concerned about unconventional gas mining (including coal seam gas, tight gas, shale gas & underground coal gasification) from the perspectives of the destruction of the natural environment by mining and the longer term impact on climate of the insane pursuit of fossil fuels for burning, as opposed to investment in clean energy.

Terms of Reference:

1. the prospectivity of Victoria's geology for commercial sources of onshore unconventional gas;

There would be no financial gains for the local populations where unconventional gas mining has been proposed. Only the executives and shareholders of mining companies, such as Cuadrilla would see any benefit. These mining operations are only financially viable when large numbers of wells are drilled and operated which would seriously put at risk water resources, farmland, food security and community health, as well as resulting in "utterly offensive" blot on the landscape. Any gains in jobs would be short term, mainly going to non-local people with different skills and subject to boom and bust as opposed to the creation of long term jobs in other sectors such as agriculture & tourism. (See attached report by Department for Environment, Food and Rural Affairs on potential impact of fracking in Lancashire UK, especially the redacted sections that give a more realistic view of the risks of fracking in rural Lancashire than the originally published version <http://stopfyldefracking.org.uk/wp-content/uploads/2015/07/DEFRA-Redacted-report-with-Pop-Ups-1.pdf>).

2. the environmental, land productivity and public health risks, risk mitigations and residual risks of onshore unconventional gas activities;

See attached US review of scientific evidence of the impact on public health, air quality and water quality that states "For each topic (health, air and water quality) we found that the majority of original research indicated substantial risks from shale and/or tight gas development on the outcome of interest. Scientific consensus is not yet achievable given comparison limitations due to differences in geology, geography, regulation, engineering, and other attributes, as well as methodological differences between studies. However, these results indicate that shale and tight gas development has known public health hazards and risks". Toward an understanding of the environmental and public health impacts of shale gas development: an analysis of the peer-reviewed scientific literature, 2009-2015. Jake Hays, Seth B.C. Shonkoff, June 2015. Similar impacts have been identified in Queensland and affect more people due to the denser population in Victoria.

The remaining terms of reference are also addressed by the two papers that I refer to above and attached to this submission. To extract the information from the reports and insert into this submission would be inefficient.

The attachment about fracking in Lancashire particularly also draws your attention to the efforts of the Tory government in UK to remove (redact) the more negative aspects of their Department's report on unconventional gas extraction (attached). Despite the doctoring of the report and threats of expensive legal action by the company concerned Lancashire County Council's recently refused to allow unconventional gas extraction in Lancashire,. There was overwhelming public support for the ban in Lancashire, as I am sure there will be in Victoria, but no doubt there will be similarly desperate actions in Victoria by those in favour of decimating our environment out of greed.

The scientific evidence is weighing more heavily over time towards proven public health, water and air quality damage by unconventional gas extraction as demonstrated in the second of my attachments.

I therefore recommend that Victoria ban all unconventional gas drilling permanently. This will give certainty and investment opportunities to existing industries such as agriculture & tourism and allow new investments in clean energy to create long term jobs in sustainable industries.

--

File1: [559b4780b5bd4-Unconventional gas enquiry submission 7.7.15.doc](#)

File2: [559b4780b631c-DEFRA-Redacted-report-with-Pop-Ups-1.pdf](#)

File3: [559b4780b64d9-Review of research on fracking impacts on health etcDatabase\\_Analysis\\_2015.6\\_.16\\_.pdf](#)