
Submission to the Legislative Council Environment and Planning Committee Inquiry into Unconventional Gas in Victoria.

Unconventional onshore natural gas includes coal seam gas, shale gas, and tight gas; the difference is in the type of sedimentary rock in which the gas is found, and how the gas is stored. Extracting onshore natural gas requires a process called hydraulic fracturing, commonly known as 'fracking'. Fracking is a technique that involves pumping a fluid consisting of water, sand and selected chemicals under high pressure into the rock containing gas. The fluid creates narrow fractures in the rock and the sand grains hold the fracture open to provide a pathway for the gas to flow from the surroundings to the gas well for extraction.

Conventional natural gas extraction involves tapping into gas reserves at a greater depth and is typically undertaken offshore. Currently, there is no unconventional gas extraction such as coal seam, tight or shale gas production in Victoria. The unconventional onshore natural gas extraction industry has been developing in Queensland over the past 20 years and more recently has expanded to NSW. It has been in operation overseas for a longer period of time.

The European Commission report into Shale Gas Fracking states that it may not be possible to fully restore sites in sensitive areas following well completion or abandonment, particularly in areas of high agricultural, natural or cultural value. Such residual effects could result in a significant loss or fragmentation of valuable farmland or natural habitats.

Due to strong community concerns about the potential environmental and health impacts of onshore gas production, in particular coal seam gas, production is not yet established in Victoria. Alarming reports have come out of the USA, the UK, and now Queensland regarding the impacts of fracking and the many unknown risks, and a lack of detailed credible information and long-term studies is contributing to stakeholders feeling ill-equipped to develop an informed opinion about the industry, its methods, and the impacts.

The ecosystems in the Buloke Shire are fragile, and already impacted by agriculture and transport industries, as well as more recent drought, floods and extreme temperatures. The impact of unconventional gas extraction in the Buloke Shire may exacerbate any negative impact on these fragile ecosystems. Research would be needed to demonstrate a lack of impact from hydraulic fracturing.

Development of fracking or other unconventional gas activities is also likely to result in increased damage to the local road network. The decentralized nature of this industry is likely to see heavily loaded vehicles accessing remote and poorly serviced areas with heavy loads and repeated use.

After concerns from many communities across the state, a moratorium was introduced by the Victorian government in August 2012 covering fracking, exploration drilling and the issuing of new exploration licenses for all types of unconventional onshore natural gas. This was introduced to allow time for more information to be gathered on the potential environmental and health risks posed by the industry. In late 2013 the moratorium was extended until July 2015 to allow for a more robust Parliamentary Inquiry to take place.

It is possible that the moratorium will be lifted once the findings of the Inquiry are handed down. So far, an Interim Report on the Community and Stakeholder Engagement Program has been produced but the complete findings of the Parliamentary Inquiry are yet to be released. In the meantime however, a ban on the addition of BTEX (benzene, toluene, ethylbenzene and

xylene) chemicals in hydraulic fracturing fluids has been legislated. This is significant because the use of these chemicals has been one of the main health concerns consistently raised in relation to onshore natural gas exploration. Resident health is a major concern for Council related to the chemicals used in this type of gas extraction sourced from wastewater ponds and possibly contacted by breathed in vapours.

The Interim Report on the Community and Stakeholder Engagement Program for Onshore natural gas summarises initial findings from across Victoria. The main themes of the concerns raised include:

- The view that existing reserves are adequate to provide enough time to transition to renewable energy resources;
- The view that the costs and risks last for generations, and outweigh the benefits which are very short-term and experienced by those not impacted by the physical development;
- Concerns regarding the substantial and long-lasting impact on the landscapes in which the development occurs (including the natural environment, agricultural areas, residential areas and areas used for tourism);
- Concerns regarding the potential impact on the environment, including use and contamination of underground aquifers;
- Concerns regarding public health including mental health issues deriving from anticipated or actual development, and impacts on the character of the community;
- Concerns that there is limited understanding of the potential risks and their management;
- Concerns regarding the capacity of regulators to manage the development and operations of the industry;
- Concerns with the amount of community consultation and knowledge to date.

It is proposed that the moratorium on the exploration of unconventional onshore natural gas be extended.

Conclusion

Hydraulic fracturing is known to require very large amounts of water, and cause contamination of groundwater resulting from the extraction process. Buloke Shire is heavily dependent on its agriculture which could be at risk of being negatively impacted by onshore natural gas extraction.

There are real concerns about the short and long-term health implications of the unconventional natural gas extraction methods, and Council has a duty of care to represent its community's interests.

The Buloke Shire Council requests the Victorian Government not allow the extraction of onshore gas by hydraulic fracturing