
Inquiry into Unconventional Gas (Fracking)

Submission
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As we begin the 21st century, new dilemmas confront our society and our planet. Unprecedented levels of consumption co-exist with extreme poverty. Through new technology we are more connected than we have ever been, yet civic engagement is declining. Environmental neglect continues despite heightened ecological awareness. A better balance is urgently needed.

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The Institute aims to foster informed debate about our culture, our economy and our environment and bring greater accountability to the democratic process. Our goal is to gather, interpret and communicate evidence in order to both diagnose the problems we face and propose new solutions to tackle them.

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Introduction

The Australia Institute (TAI) welcomes the opportunity to make a submission to the Natural Resources Committee's inquiry into unconventional gas. TAI has written extensively about the economic impacts of unconventional gas in Australia.¹ As such, our submission relates mainly to point four of the committee's terms of reference:

4. The potential net economic outcomes to the region and the rest of the state.

The net economic effects of gas development in South Australia are likely to be small:

- There would be minimal impact on gas prices as South Australia is connected to the East Coast gas market and through it to world markets.
- There would be minimal impact on employment as the gas industry is a very small employer.
- There would be minimal impact on government revenues as royalties are a small part of government revenue.

Furthermore, the impacts of unconventional gas for other local industries and communities are often negative. A detailed study of the Darling Downs in Queensland has shown a deterioration of local capital and increased costs.

Gas prices

Gas prices in South Australia and eastern Australia more generally are going to rise substantially. These price rises are not driven by a lack of supply but rather by an increase in demand. Now that the eastern Australian gas market is connected to the world gas market, domestic gas producers will be able to sell at the world netback price – also known as the export parity price – which is substantially higher than current gas prices.

This link is through the Gladstone liquefied natural gas (LNG) facilities in Queensland. Now that these facilities are coming on line, gas prices will rise and gas production will become far more profitable. Because of this it is understandable that gas companies are keen to expand production in previously undeveloped areas such as southeast South Australia.

Wholesale gas prices are likely to go up from around \$3 to \$4 per gigajoule to the world netback price of \$9 per gigajoule, although recent changes in world oil price may reduce this impact. This is because Australian gas producers will have the option to sell to Japanese consumers who are willing to pay \$15 per gigajoule. This doubling or tripling of wholesale gas prices is going to increase Australian consumers' gas bills dramatically.

Ironically it is not a lack of supply that is going to drive up gas prices but, rather, the introduction of unconventional gas as a new form of supply. Without this additional supply it is unlikely that gas production would have been large enough in the eastern market to justify the construction of LNG facilities.

¹ See for example:

Grudnoff, M., 2013. *Cooking up a price rise: Will CSG exports push up the price of gas?*, Policy brief number 53. The Australia Institute, Canberra. Available at: www.tai.org.au.

Grudnoff, M., 2014. *Fracking the future Busting industry myths about coal seam gas*, The Australia Institute, Canberra, Australia. Available at: <http://www.tai.org.au/content/fracking-future>.

This higher price has made the gas industry eager to increase its supply; gas is about to become far more profitable. In particular it has been attempting to expand unconventional (CSG) exploration. Public concern about extracting CSG has meant that, in New South Wales, further restrictions have been placed upon the location of CSG wells. This has upset the gas industry, but its claims that restrictions on CSG production are the cause of price increases are not correct. Increases or decreases in domestic gas supply will have almost no impact on the price of gas. Now that the eastern Australian gas market is linked with the world market, domestic gas prices will be subject to movements in the world price and domestic production will have little influence on price.

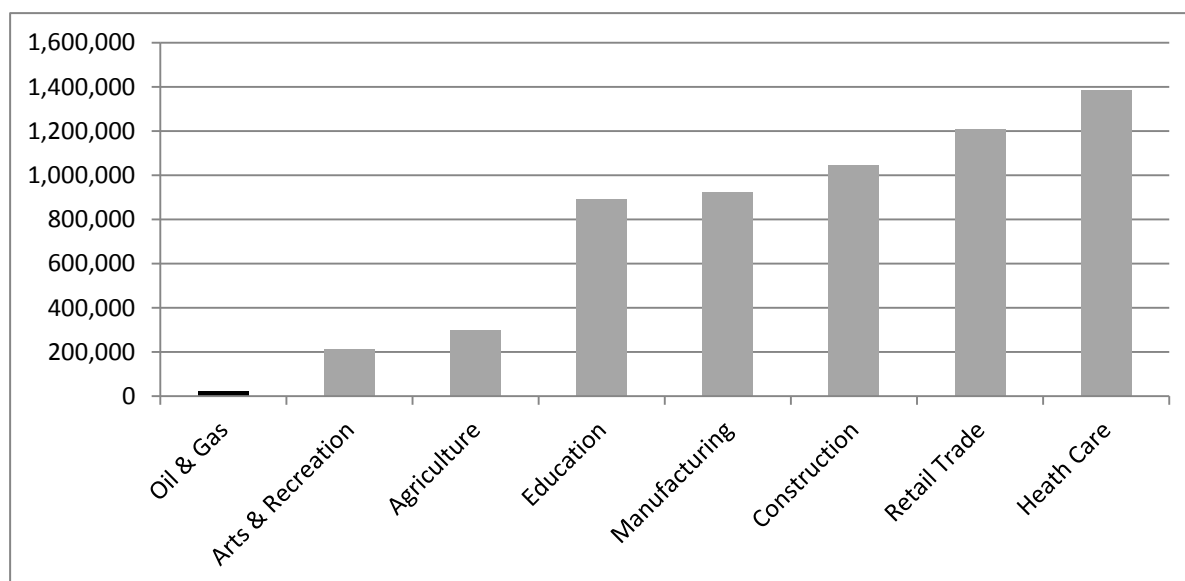
Employment

The gas industry is a very small employer in South Australia and Australia more widely. At the 2011 ABS census, only 1,831 people in South Australia worked in oil and gas extraction, a fraction of one per cent of the state's 800,000 strong workforce. Even the wider mining sector employs only 16,000 people, 2 per cent of the state's workforce in November 2014.²

Gas and mining are capital intensive, rather than labour intensive. This means they invest large amounts of money in machinery and pipelines, but actually employ very few people.

While figures for the gas industry are not published by the ABS, job numbers for the oil and gas industry are. In November 2014 the entire oil and gas industry employed 20,800 people, which is 0.2 per cent of the workforce. To put this figure into context, the hardware retail company Bunnings employs 33,000 people.

Employment in Australia, selected industries



Source: ABS Catalogue 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly

The gas industry is, however, relentless in its claims about job creation. It commissions modelling, creates dedicated websites and runs national multi-million dollar advertising campaigns that focus on the potential for the industry to create huge numbers of jobs. For example in a 2013 advertising campaign, 'our natural advantage', the campaign website

² ABS Catalogue 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly, November 2014.

claimed: “The natural gas industry was responsible for an estimated 100,000 Australian jobs last year.”³

To fully appreciate this claim we need to put an additional 100,000 jobs in context. In 2012, according to the ABS, the Australian economy added an additional 134,400 jobs. If the APPEA’s claims are true, 74 per cent of all the additional jobs created in the economy last year were in the gas industry. This would be an amazing achievement if it were true and at the same time it would probably show that growth in the Australian economy was extremely narrow, being focused almost entirely in the gas industry.

Fortunately we can check such a claim. According to the ABS, only 5,400 additional jobs were created in the oil and gas industry that year. The ABS does not publish employment statistics just for the gas industry as it is too small, but it does collect statistics for the “oil and gas” industry. Even this number is likely to overestimate additional gas jobs since it will also include additional oil jobs. This is somewhat smaller than the 100,000 claimed by the industry.

Polling conducted for the Australia Institute in 2013 shows that the gas industry’s misinformation campaign is working. People were asked to list perceived benefits of unconventional gas development. The third most named benefit was more jobs.⁴

Government revenues

South Australian budget papers show that royalties from mining and gas are a small source of revenue, accounting for only 2 per cent of the state’s budget. Most of the existing revenue comes from mining rather than gas. Expanding the gas industry would have minimal effects on the state’s fiscal position. Other sources of revenue are far more important, as shown in the table below:

South Australian government revenue

Revenue source	\$millions	% of state budget
Federal grants	\$ 8,270	51%
State taxes	\$ 4,524	28%
Sale of G&S	\$ 2,282	14%
Royalties	\$ 323	2%
Dividends	\$ 256	2%
Other	\$ 216	1%
Fines and penalties	\$ 130	1%
Schools	\$ 34	0%
Interest	\$ 32	0%
Total	\$ 16,067	

Source: <http://servicesa.cdn.on.net/budget201415/docs/budgetp3-201415.pdf>

³ <http://www.ournaturaladvantage.com.au/>

⁴ (Grudnoff 2014)

Local impacts

Gas companies claim they bring jobs and benefits to local communities. While some people profit from these developments, many existing local businesses are negatively impacted and non-mining jobs are lost.

Research shows that overall the impact on local businesses and people who do not work in the mining industry are negative.

The most detailed study in Australia to date that examined the impact of CSG and coal mining on businesses and the community was carried out in Queensland's Darling Downs by the mining industry funded Sustainable Minerals Institute⁵. The Darling Downs region has experienced a large expansion of coal and gas mining.

It found that while those working in CSG and mining had positive view of the impact of these industries, local businesses, farmers, the community and the advocacy sector consistently believed CSG and mining had led to a deterioration of:

- **Financial capital;** revenue streams and economic resources.
- **Built capital;** local infrastructure including buildings, transport, equipment and communications.
- **Human capital;** skills, knowledge, abilities and good health possessed by its residents
- **Social capital;** organisations, social contacts, networks and relationships, based on shared values, mutual trust and reciprocity

The reasons for the disruptive negative impacts on local jobs and the community include:

- **Poaching skilled labour:** Manufacturing and agricultural businesses in particular invest significant time and resources in training skilled staff. High mining wages mean these businesses lose skilled staff to mining and are forced train new staff and compete with the mining industry to recruit and retain staff, leading to significant disruption and increased costs. These businesses effectively pay for much of the training of the resource industry.
- **Increased costs:** While some businesses gain work from mining projects, particularly during the short construction period, businesses that don't service the mining industry (most businesses) find it increasingly difficult and more expensive to service machinery and access skilled trades people. Rents and other costs also increase.
- **Boom and bust cycle:** The construction period of projects is usually only a few years. The flow on benefits to businesses servicing the mining construction is fleeting and disruptive to those businesses that do not service the mining industry (most businesses).

Similarly, a study carried out by the CSIRO, also funded by the CSG industry⁶, found that only 14% of the community approved of CSG and 6.1% thought CSG would change the community to something better.⁷

⁵ Everingham, J., Collins, N., Rodriguez, D. Cavaye, J., Vink, S., Rifkin, W. & Baumgartl, T. (2013) *Energy resources from the food bowl: an uneasy co-existence. Identifying and managing cumulative impacts of mining and agriculture. Project report.* CSRM, The University of Queensland: Brisbane.

⁶ All the authors of this report are funded by GISERA, funded by APLNG and QGC. This is not disclosed in the report.

Conclusion

Far from being a great source of economic benefit, expanding unconventional gas development brings minimal benefits and can impose significant local costs. Despite gas industry campaigns to paint their industry as economically important, official sources show that:

- Gas is a small employer
- Unconventional gas development does not lead to cheaper gas prices
- Gas makes a small contribution to the state budget
- Gas has serious impacts on local communities and other industries.

As a result we recommend against development of unconventional gas projects in South Australia.

⁷ Walton, A., McCrea, R., & Leonard, R. (2014). *CSIRO survey of community wellbeing and responding to change: Western Downs region in Queensland*. CSIRO Technical report: CSIRO, Australia.