LOCK THE GATE ALLIANCE
AUSTRALIANS WORKING TOGETHER TO PROTECT OUR LAND, WATER, AND FUTURE

Submission to the Territory Economic Summits 2017

2 April 2017

Thank you for the opportunity to provide insights and feedback into the Territory Economic Summits.

The Lock the Gate Alliance is a national grassroots organisation made up of thousands of individuals and over 250 local groups who are concerned about unsafe or inappropriate mining. Active local groups are based here in the Northern Territory. The mission of the NT Lock the Gate Alliance is to protect Australia's agricultural, environmental, and cultural resources from inappropriate mining and gasfields.

Introduction

This submission aims to contribute information to the Northern Territory Government on the economic data available in relation to onshore unconventional gas mining.

We note that the current draft Economic Development Framework speaks to an estimated 200 trillion cubic feet of gas resources in six onshore gas basins. It encourages the industry to develop further communication narratives around the benefits of the industry. It also proposes attracting 2-3 major gas corporations to establish headquarters in Darwin.

The NT Lock the Gate Alliance has a duty on behalf of our Territorian members and supporters to ensure that the NT Government understands that onshore gas fracking has detrimental impacts on other sectors of the economy. These impacts must be costed into broader discussions and future decisions for the economy.

We are advocating that the Northern Territory Government has a clear eyed review of this data and the facts at hand before the potential onshore gas basins are opened up to fracking gasfields in the name of the economy.

The Northern Territory Government would benefit from an independent source of information about the economic pitfalls of the unconventional gas industry for Governments and local communities, to ensure the NTG makes the most informed decisions for Government budget and revenue forecasts into the future.

This short submission aims to puts a spotlight on several key economic points that warrant further investigation by the Northern Territory Government.

Royalties from onshore gas are likely to be far less than forecast

The Northern Territory can look to QLD for actual figures on the onshore gas industry and contribution to the economy through royalty payments. The uncomfortable reality is that QLD has reaped very little of the economic royalties that it was promised and that QLD Treasury forecast.

The QLD Treasury mid-year review in 2013-14 forecasted $482M for petroleum royalties to flow during 2015-16[1].

However, the reality shows that in Queensland, the Mid Year Fiscal and Economic Review reported actual royalties from onshore oil and gas were $36M in total from all CSG and conventional gas in 2015-16[2]. That equates to only 7.5% of projected royalty payments, compared to what was expected just three years earlier. The reality is down by $446M.

A deeper look shows that those royalty payments were made from 5,127 coal seam gas wells that were producing that year[3].

Further, the Qld government was pressured by the CSG and mining industries in lead-up to election in 2015 and committed to a royalty freeze (no increase in rates), which is still in place.

Origin Energy has taken the QLD Government to the Supreme Court challenging the entire system of royalties and the rights of the QLD Government to levy them.

Furthermore, as reported in the Australian Financial Review on 28 April 2016, the royalty spat between the Queensland government and a major gas consortium flared up with a petroleum exploration company claiming big liquefied natural gas producers used transfer pricing to reduce their royalties bill.[4]

Meanwhile, the Statement of Claim by ex-Origin whistle blower Sally McDow against Origin includes allegations that there are gaps in monitoring equipment used to calculate payment of gas royalties to the Qld Government, which the register recorded may result in 'tens of millions of dollars' in lost royalties.

The relevant information is on page 22 of the attached Updated Statement of Claims filed on 24 January 2017. Please note Origin has applied to strike out

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[1] QLD Treasury, 2014, https://www.treasury.qld.gov.au/publications-resources/mid-year-review/mid-year-review-2013-14.pdf

[2] Queensland Government's Mid Year Fiscal and Economic Review 2016-17, https://www.treasury.qld.gov.au/publications-resources/mid-year-review/mid-year-review-2016-17.pdf#mid-year

[3] Queensland Government data: CSG Production, 6 Monthly Statistics https://data.qld.gov.au/dataset/petroleum-gas-production-and-reserve-statistics/resource/63a8a6cc-7fb6-4040-b4e7-9d453b14d3ed

[4] AFR 2016, http://www.afr.com/news/politics/origin-lng-consortium-used-transfer-pricing-to-cut-taxes-20160426-gofb0q

certain paragraphs form the amended statement of claim, and that application will be heard in court on 10 April 2017.

Royalties are likely to be spent on dealing with negative industry impacts

After the gas companies work to pay as little royalties as possible, what they do contribute is likely to be needed to pay for the damage the industry creates in the Territory.

That is particularly the case if much of that royalty payment then needs to be spent on roads for gas mining trucks, upgrades to the Stuart Highway, clean up efforts from fracking spills, compensating tourism operators for lost business, increased policing due to increased crime and anti-social behaviour around gas worker camps, or reduced land productivity due to lowered water availability in light of high water use by the shale gas industry.

- Increased crime rates in oil and gas regions come at a cost to Government

A recently release paper from the Journal of Environmental Economics and Management shows that the energy boom in the United States has affected regional crime rates throughout the country. Researchers found positive effects on rates of various property and violent crimes in shale-rich counties. In 2013, the cost of the additional crimes in the average treatment county was roughly $2 million[5].

The Western Criminological Review Journal found in 2013 that law enforcement and human service personnel reported that the rapid growth in oil and gas producing areas and communities leads to increased crime and other social ills. Researchers made a comparison of 2012 crime rates in a matched sample of counties revealed that crime rates were higher in oil impacted counties. A pre-post analysis found that violent crime in boom counties increased 18.5% between 2006 and 2012 while decreasing 25.6% in a matched sample of counties that had no oil or gas production[6].

A Multi-State Shale Research Collaborative published a report in December 2014 on the relationship of the shale drilling to crime, traffic fatalities, STDs and rents. Researchers found that communities with the highest intensity of natural gas drilling have seen increased rate of crime, motor vehicle fatalities and sexually transmitted diseases. While the influx of energy workers hasn't

[5] James, Smith et al, 2017, There will be blood: Crime rates in shale-rich U.S. counties, Journal of Environmental Economics and Management Volume 84, July 2017, Pages 125–152, http://dx.doi.org/10.1016/j.jeem.2016.12.004, http://www.sciencedirect.com/science/article/pii/S0095069616305459

[6] Ruddell, Rick, Dheeshana S. Jayasundara, Roni Mayzer, and Thomasine Heitkamp. 2014. "Drilling Down: An Examination of the Boom-Crime Relationship in Resource Based Boom Counties" Western Criminology Review 15(1):3-17 (http://wcr.sonoma.edu/v15n1/Ruddell.pdf).

significantly increased population figures, it coincided with a surge in rental prices across the Marcellus Shale region[7].

Major gas companies operating in Australia do not pay corporate tax

In late 2016, the Australian Tax Office revealed large companies in Australia that paid no corporate tax in the 2014/15 financial year, these included:

- Origin Energy Ltd, total taxable income $12,200,600,757, paid zero corporate tax,
- Santos Ltd, total taxable income $3,389,399,798, paid zero corporate tax[8].

Jobs projections from onshore unconventional gas are overstated by APPEA's presentation of their Deloitte report

The 2015 APPEA commissioned Deloitte Access Economics report clearly states in the executive summary on page four that the jobs figures were modelled in an "aspirational scenario" and "they do not necessarily represent expected outcomes", requiring "upper bound assumptions to materialise". Page five reveals their jobs figure is not due to eventuate until the year 2040[9].

Their report not only relied on a high international gas price that no longer exists, but also on the opening up of six onshore gas basins across the Territory, which would require thousands of gas wells across tourism regions and important water basins.

Independent modelling of realistic figures, based on a realistic oil price and volumes of shale gas that are appropriate to bring to market are required before the NT Government makes decisions based on the Deloitte data alone.

Onshore gas jobs have a negative impact on agricultural jobs

The Office of the Chief Economist's 2015 Review into the Socioeconomic Impacts of Coal Seam Gas in QLD revealed that researchers produced "evidence that agricultural jobs have been affected negatively: 1.8 agricultural jobs lost correlating with every CSG job created."[10]

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[7] Multi-State Shale Research Collaborative, 2016: http://www.pennlive.com/midstate/index.ssf/2014/12/fracking_brought_spikes_in_vio.html

[8] ABC report based on ATO data, December 2016, http://www.abc.net.au/news/2016-12-09/tax-data-transparency-ato/8106178

[9] Deloitte Access Economics, 2015: https://www.appea.com.au/wp-content/uploads/2015/08/APPEA_Deloitte-NT_Unconv_gas_FINAL-140715.pdf

[10] Office of the Chief Economist, 2015, Review of the socioeconomic impacts of coal seam gas in QLD, https://industry.gov.au/Office-of-the-Chief-Economist/Publications/Documents/coal-seam-gas/Socioeconomic-impacts-of-coal-seam-gas-in-Queensland.pdf

That means that for every 10 unconventional gas jobs created in QLD, 18 agricultural jobs were measured to be lost. This negative jobs figure for agriculture was measured and reported in a peer-reviewed paper by Fleming and Measham in 2015[11].

Onshore unconventional gas led to a degradation of public resources

In 2013, the University of QLD published in depth research into the impacts of mining and onshore gasfields across the regional QLD communities where they were operating. The research team interviewed people from across all sectors of the local communities to gather a broad range of evidence and feedback on the impacts[12].

The outcomes of discussions are summed up in the below table. It is worth noting that even stakeholders representing the mining and gas sector conceded that built capital such as roads in the area were made worse due to the operations of mining and gas in the area.

Stakeholders groups	Financial capital	Human capital	Built capital	Social capital	Natural capital
Gas	Better	Better	Worse	Better	Better
Mining	Better	Better	Worse	Better	Better
Agriculture	Worse	Worse	Worse	Worse	Worse
Local business	Worse	Worse	Worse	Worse	Worse
Local government	Worse	Better	Worse	Same	Same
Community	Worse	Better	Worse	Worse	Worse
Advocacy	Worse	Worse	Worse	Worse	Worse

[11] Fleming and Measham, 2015: Local economic impacts of an unconventional energy boom: the coal seam gas industry in Australia, The Australian Journal of Agricultural and Resource Economics, 59(1), pp. 78–94, http://onlinelibrary.wiley.com/doi/10.1111/1467-8489.12043/abstract

[12] 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.

Shale gas may not be profitable, may lead to bankruptcies

In shale gasfields of the United States, Bloomberg reported that many fracking companies were losing money on shale drilling. A damning case study of shale drilling in Oklahoma revealed that the drilling was financed on cheap debt, with drillers spending $2 for every $1 they made from shale.

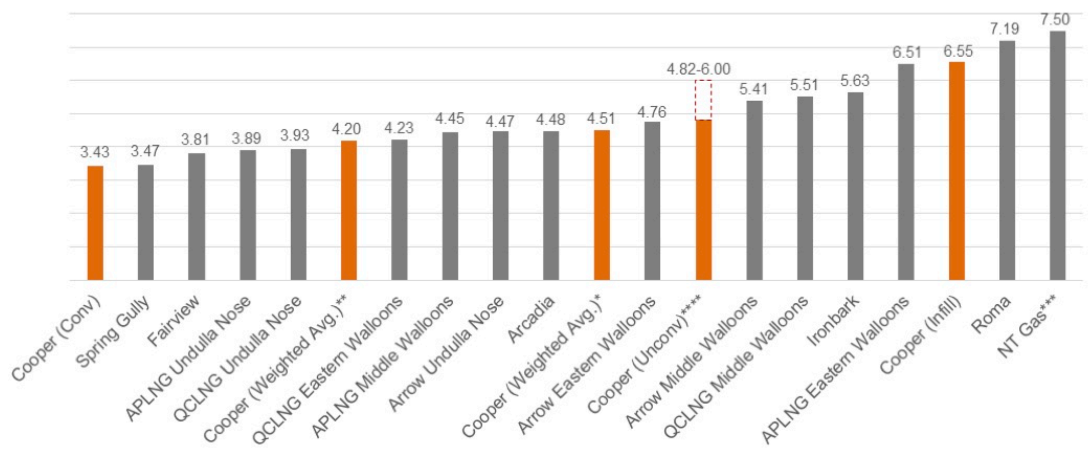
The report includes: "As Stanley Druckenmiller, an investor with one of the best long-term records in money management, said of Texans in January 2015: "Those guys know how to gamble, and if you let them stick a hole in the ground with your money, they're going to do it." Shale wasn't sustaining the frenzy; cheap debt was.[13]

A 2016 Reuters report revealed a wave of bankruptcies across the United States that year[14]. One question for the Northern Territory is: who pays the clean up bill if these shale gas drilling and fracking companies go bankrupt?

These examples are relevant to the Territory, due to the high cost of operations here. In October 2016, Core Energy Group provided an Outlook Report to the SA Government and industry round table. The report includes the below table, outlining that NT Unconventional gas is the most expensive gas to extract in all of Australia[15].

Cooper-Eromanga Basin Outlook | 2035 1. Executive Summary

Figure 1.9 Comparison of Cooper Basin and Competitor Marginal Cost of Supply (ex-field) | AUD/GJ



* Represents the weighted average of the CBJV Conventional gas and the CBJV infill program, under the assumption that infill gas would meet the existing horizon contract shortfall.
** Represents the weighted average of the CBJV Conventional gas and unconventional plays, under the assumption that gas from unconventional reservoirs would meet the existing horizon contract shortfall and the contestable market.
*** NT Gas is estimated to have a range of AUD6/GJ (Blacktip ex-field) to AUD7.50/GJ for the higher cost unconventional plays.

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13 Bloomberg, 2016, https://www.bloomberg.com/news/articles/2016-03-10/the-shale-reckoning-comes-to-oklahoma

14 Reuters, 2016, http://www.reuters.com/article/us-usa-shale-telecoms-idUSKCN0XV07V

15 Core Energy Group, 2016, Cooper-Eromanga Basin Outlook | 2035

The Northern Territory Government will be under pressure to provide subsidies to shale gas drillers through the building of roads and through discounts to the large volumes of water required for the drilling and fracking process, compromising the little royalty payments the Government may receive. There will also be pressure to keep costs of regulation and compliance low, further putting at risk the other surrounding industries that contribute to the Territory's economy.

Onshore gas mining does not lead to a sustained rise in population numbers

The conversations at the NT Economic Summit were clear that in order to boost the Territory economy, it was necessary to increase the population who live in the Territory with people who will bring their families to the Territory, pay tax in the Territory, spend their money in the Territory.

FIFO workers who work on shale fracking rigs and live in man camps will not achieve that goal. Union bodies operating in the Northern Territory would be well placed to provide the Government with their learned experiences of FIFO workforces and make recommendations.

New QLD state legislation banning 100% FIFO workers for projects has been introduced and it would be worthwhile for the Northern Territory Government to investigate this matter further[16]. Despite having many shortcomings, the Queensland legislation is at least a start.

Landholders loose millions every year by hosting unconventional onshore gasfields

In 2016, the CSIRO released a report into the total losses to gross revenues incurred by farmers who host unconventional gasfields on their properties. The new spatial modelling, using a methodology developed by CSIRO after years of research, found that the alienation of productive farmland for CSG infrastructure in Queensland results in losses in gross economic returns of up to 10.9%[17].

The research, published in the Land Use Policy Journal, found that in relation to the chosen study area in the Western Downs: "In the scenario assessment the total losses to gross revenues incurred by the existence of CSG infrastructure per

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[16] Minister for State Development and Minister for Natural Resources and Mines
The Honourable Anthony Lynham, November 2016,
http://statements.qld.gov.au/Statement/2016/11/8/queensland-government-moves-to-deliver-choice-for-resource-communities-workers

[17] O. Marinoni, J. Navarro Garcia, 2016, A novel model to estimate the impact of Coal Seam Gas extraction on agro-economic returns, Land Use Policy, Volume 59, 31 December 2016, Pages 351–365, http://www.sciencedirect.com/science/article/pii/S026483771630076X

property varied between $1.32 m and $3.29 m and averaged $2.17 m… Access tracks and lease areas contribute most to economic losses".

The Lock the Gate Alliance notes that the methodology was estimating economic losses based solely on reduction in land area and did not attempt to quantify losses resulting from disruption to operations, dust generation, spills and leaks of wastewater or the spread of weeds. Therefore, total losses to landholders will undoubtedly be far higher.

While farmers do receive some compensation for hosting gas mining companies on their land, landholders have been suggesting that access agreements and compensation payments should be made publicly available and must also be agreed to by the Territory Government. This would help ensure there can be no confusion as to the impacts the industry is having on landholders' assets as they host gas companies on the Northern Territory Government's behalf.

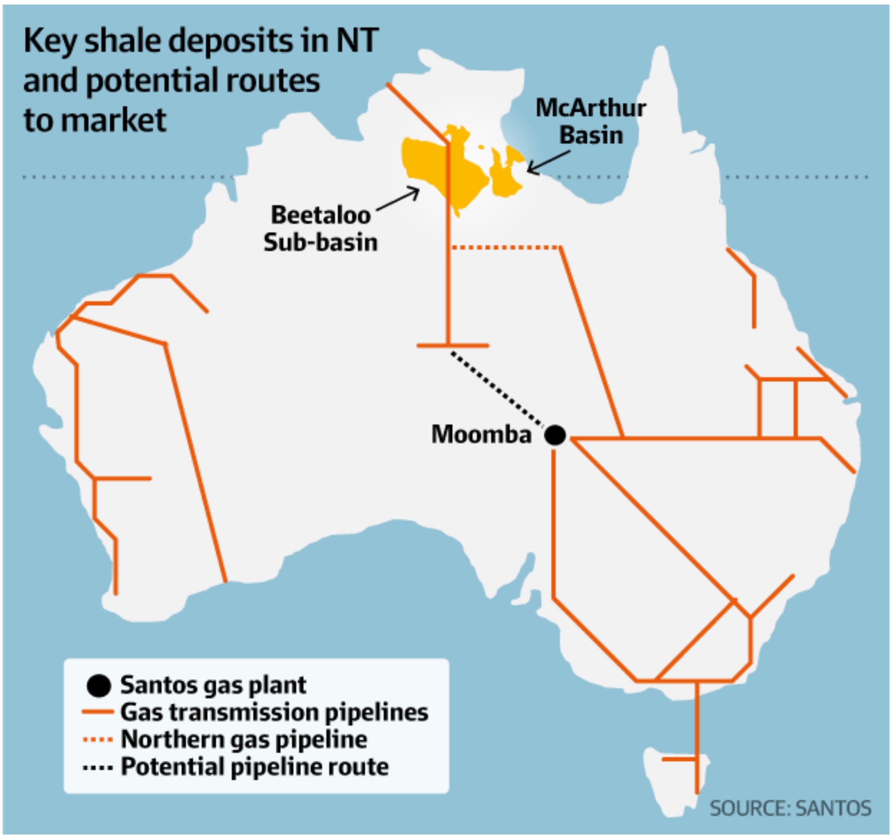
Six onshore gas basins would have noticeable detrimental impacts

The Draft Infrastructure Plan displays an infographic stating "*Estimated 200 trillion cubic feet of gas resources in six onshore gas basins*." A question that should be answered before that statement is made: Where are hundreds of shale gas wells going to go, how much water are they going to use, and what will be the economic detriments to other Territory industries and tax payers?

Major Territory tourism icons would have their visitation numbers put at risk due to industrial gasfield activities and risks of water depletion and/or contamination.

On Friday 31 March, the Australian Financial Review released a map of where gas producers would like to be able to access in the NT by the end of 2017[18]. The map, inserted here and supplied to the AFR by Santos, includes significant tourism areas of the NT including Mataranka thermal springs and large tracts of the Roper River catchment in the proposed gasfield region.

[18] Australian Financial Reivew, 2017, http://www.afr.com/business/energy/gas/beetaloo-emerges-as-beacon-for-east-coast-gas-20170329-gv9add



Communication campaigns by the gas industry are not likely to help the NT Economic Development Framework

Page 26 of the draft Economic Development Framework says:
Energy and resources industry to develop a communication/consultation strategy to create a narrative which tells the full story to the community, including local benefits, job opportunities, and the impact on the environment. [19]

The Giles Government learned the hard way that the Northern Territory community sees through reports by the onshore gas industry and the NT Government that are based in industry spin without detailed facts. Building a better 'narrative', while ignoring key economic, social and environmental realities will do little for the NTG and certainly shouldn't be encouraged through the inclusion in the final Economic Development Framework.

Conclusion

Inflated jobs and royalty claims from the potential onshore gas industry in the NT is not helping at critical time for the Territory to have a realistic budget.

[19] NT Government Discussion Draft, 2016 https://economicsummit.nt.gov.au/__data/assets/pdf_file/0006/407688/discussion-draft-economic-development-framework.pdf

The financial returns of a shale gas fracking industry in the Territory could be very little, or even lead to a net deficit once the on ground costs to other Territory tax payers and liabilities are factored in.

The Lock the Gate Alliance would like to reiterate the key findings of this short submission all supported with references. We commend further research on these matters to the Northern Territory Government:

- Royalties from onshore gas are likely to be far less than forecast,
- Royalties are likely to be spent on dealing with negative industry impacts,
- Major gas companies operating in Australia do not pay corporate tax,
- Jobs projections from onshore unconventional gas are overstated by APPEAs presentation of their Deloitte report,
- Onshore gas jobs have a negative impact on agricultural jobs,
- Shale gas may not be profitable, may lead to bankruptcies,
- Onshore gas mining does not lead to a sustained rise in population numbers,
- Landholders lose millions every year by hosting unconventional onshore gasfields,
- Six onshore gas basins would have noticeable detrimental impacts, and
- Communication campaigns by the gas industry are not likely to help the NT Economic Development Framework.

For further comments or questions on this submission, please contact Naomi Hogan of the NT Lock the Gate Alliance.

Best regards,

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