



22nd May 2017

NSW Government,
Planning and Environment,
Major Projects Assessments,
Narrabri Gas Project,

Madam/Sir,

Re: Assessment of the Narrabri Gas Project

We thank you for the opportunity to make a submission on the Narrabri Gas Project..

This Project has implications that transcend the borders of NSW.

It is with the national implications in mind that the Bayside Climate Change Action Group is making this submission, hereby attached.

Sincerely

David Rothfield
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Bayside Climate Change Action Group

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Submission to NSW Government - Planning & Environment
Major Projects Assessments Narrabri Gas Project
22nd May 2017

*This submission is by **The Bayside Climate Change Action Group (BCCAG)** in Victoria. BCCAG's vision is 'A safe climate for all'. We work to raise awareness about the consequences of climate change, to influence decision makers at all levels of government to implement necessary mitigation strategies and to encourage sustainable practices amongst Bayside residents.*

Summary

This submission relates to the Environmental Impacts Statement (EIS) submitted by Santos in relation to its proposed Narrabri Gas Project. Having studied the EIS, the Bayside Climate Change Action Group (BCCAG) strongly objects to this project. We are confident that others closer to the locality than we are, will find objections arising from unacceptable risks to the immediate environment. Our submission, places the project in a wider context, that of its impact on Australia's greenhouse gas emissions, and potentially our ability to meet our international climate change commitments.

The risks of substantial fugitive emissions are explored and shown to be a cause of extreme concern to anyone who wishes to embark on a serious policy of emissions reduction in response to climate change. We furthermore show that, contrary to popular perception, the demand for gas on the domestic market is actually declining as alternative renewable energy sources become more cost competitive. Allowing CSG projects such as this, with its many attendant risks works contrary to policies aimed at mitigating the impacts of climate change.

Introduction

We live in a world threatened with the dramatic and devastating consequences of climate change. The Australian Government has joined the global community in committing to limiting global warming and transitioning to a zero-carbon economy by mid-century. With extreme weather events, such as Cyclone Debbie setting new norms and record ocean temperatures bleaching the Great Barrier Reef now for two consecutive years, we are reminded of the consequences of ignoring the risks that climate change poses to the fabric of our way of life.

It is in this context that planning authorities must view regional energy production plans such as the Narrabri Coal Seam Gas Project. The crucial test for this project is whether Coal Seam Gas production has a proven track record of reducing emissions or whether undeclared and unmeasured fugitive emissions actually mask a significant addition to declared emissions. Planners must also question the validity of such a large, disruptive CSG project, ostensibly needed for the domestic market, at a time when the domestic gas market is shrinking and being replaced by more cost effective renewable energy systems.

Quantifying Greenhouse Gas Emissions

According to the Santos EIS, '...The most material greenhouse gas emissions from the project are associated with carbon dioxide venting and combustion of fuel during gas processing. '. That Santos can overlook the potential contribution of fugitive methane emissions on such a far-flung project is astounding, given the substantial evidence now available of the presence of high methane levels in CSG production areas.

In 2014, Scientific American quoted two studies that concluded that, on a global scale, gas fields may be leaking enough methane to make the fuel as polluting as coal for the climate (Appx 1.).

In 2016 The Melbourne Energy Institute (MEI) published a review of current and future methane emissions from Australian unconventional oil and gas production. (Appx 2.) This review includes the following assessments.

- There is significant uncertainty about methane emission estimates reported by oil and gas producers to the Australian Government.
- Current Australian methane emission estimation methods ignore this potential source (of migratory or fugitive emissions).
- Migratory emissions could significantly increase with continued depressurisation of the coal seams.
- If methane emissions from unconventional gas production are being significantly under-reported, this could have a large impact on Australia's national greenhouse gas (GHG) accounts.

Until now, estimates of fugitive emissions have been based on those occurring at the point of combustion only. This may have been valid when production took place at large, central industrial locations. However, the CSG production process is spread over a far-flung scattered network encompassing a range of activities from exploratory drillings at multiple sites, sinking of multiple production wells, transport of gas via an interconnected network of hundreds of kilometres of pipes and various control devices and processing at a remote central processing plant. There is evidence of varying degrees of leakage taking place at all of these production stages.

Do we need more gas?

Until now, governments and industry have promoted natural gas as a necessary 'transition fuel', between coal fired generation and renewables. This belief arose during a time when gas was considered cheap and renewables were considered expensive.

This is no longer the case. Gas prices have risen dramatically in recent years as Australian gas has become available on the international market. Over the same period, wind and solar generation costs have plummeted so that today they can, in most situations, compete with new coal. As a result, we have witnessed a decline in gas demand across Eastern Australia.

The MEI studied the causes of this trend in a report published in 2015, *Switching off gas – An examination of declining gas demand in eastern Australia* (Appx 3.) The key points from this report include:

- According to the Australian Energy Market Operator (AEMO), since 2012, the amount of gas consumed in eastern Australia has declined each year and will continue to decline.
- With the recognition of declining demand, AEMO's previous concerns about gas supply shortfalls were withdrawn.
- Developing coal seam gas has proven to not be as easy, nor as cheap as had been expected – which has contributed to gas price pressures.
- Retail gas prices are increasing, also due to increasing distribution and retail costs
- In eastern Australia, there are potentially half a million to a million homes where residents are unaware that they can immediately start to save hundreds of dollars annually on their heating bill by using their existing reverse-cycle air conditioners (RCAC) (for heating) instead of gas.

The following table from the MEI report shows the savings that typical households in different regions of Eastern Australia can make by switching from gas heating to electric RCAC heating.

Table 7: Gas-versus-RCAC space-heating running costs, derived from analysis done by the ATA (20). (MEI)

Location	Home Type	Gas space-heating costs (energy- only, excludes fixed supply charges) (\$/year)	RCAC space-heating costs (energy- only, excludes fixed supply charges) (\$/year)	Heating cost savings with RCAC (\$/year)	% savings with RCAC (%)
Canberra, ACT	large	\$2,255	\$522	\$1,733	77%
Melbourne, VIC	large	\$1,049	\$391	\$658	63%
Orange, NSW	medium	\$1,370	\$949	\$421	31%
South NSW	small	\$599	\$415	\$184	31%
Adelaide, SA	small	\$180	\$124	\$56	31%

This table lists only five of the 156 region/zone and dwelling-type combinations examined by the ATA.

Governments have a responsibility and a duty of care to all their citizens to take effective action to mitigate climate change and to ensure they have access to the best advice on saving energy costs. In relation to energy policy, that responsibility and duty obligates them to ensure renewable energy can compete on a level playing field with high emissions producing energy generators. That includes recognition of the societal costs resulting from emissions.

Coal seam gas production may possibly be less emissions intensive than coal fired generation, though until we have independent verification, we must regard such a proposition with skepticism. Furthermore, an investment in gas production means fewer resources are available for zero emissions energy production from renewables. That in turn means a slower transition process to a zero-carbon economy.

Conclusions

1. There is reason to believe that emissions from CSG production such as the Narrabri Project, are being significantly under-reported, thus compromising the validity of Australia's GHG accounting.
2. The demand for gas on the domestic market in eastern Australia is declining as retail gas costs increase and the cost of renewable energy production decreases.
3. Allowing a CSG project such as the Narrabri Project to proceed, with its attendant environmental risks, goes contrary to government policy to promote a timely transition to a zero-carbon economy. In so doing it throws in to doubt Australia's ability to meet its international climate change commitments.

Appendices

1. Scientific American. *Leaky methane makes gas bad for global warming* (2014).
2. Melbourne Energy Institute. *A review of current and future methane emissions from Australian unconventional oil and gas production* (2016).
3. Melbourne Energy Institute. *Switching off gas. An examination of declining gas.*