

Dewhurst and Bibblewindi gas projects

Submission to NSW Planning and Assessment Commission
June 2014

Mark Ogge and Roderick Campbell

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Level 5, City Walk Centre
131 City Walk
Canberra City, ACT 2601
Tel +61 2 6130 0530
Email: mail@tai.org.au
Website: www.tai.org.au

Introduction

The Australia Institute welcomes the opportunity to make a submission to the Planning and Assessment Commission (PAC) hearing on the Dewhurst and Bibblewindi gas projects. Our submission focuses on the economic aspects of the projects assessment and justification, in the Environmental Impact Statement (EIS), the Response to Submissions (RTS) and the Department of Planning and Infrastructure's Environmental Assessment Report (The Department's EAR).

This submission follows on from a submission to the EIS for the Dewhurst Project by Economists at Large. The lead author of that submission, Rod Campbell, now works at The Australia Institute.

The key points of this submission are:

- Economic assessment of the projects does not comply with Director General's Requirements (DGRs).
- The justification of the project is based on incorrect information about the Australian East Coast gas market.
- The Department's EAR is incorrect in relation to the implications of the project for greenhouse gas emissions.

Economic Assessment

The Director General's Requirements for this project are clear – the EIS must show a net benefit to the community of NSW. This requires cost benefit analysis of the project. The Director General's stance is supported by the NSW Treasury and Department of Planning and Infrastructure's *Guideline for the use of Cost Benefit Analysis in mining and coal seam gas proposals*.¹

This was pointed out to the proponents in submissions, but no such analysis has been carried out. The response to submissions claims:

It is recognised that there will always be differing points of view between economic practitioners that prefer a cost benefit approach and those that prefer an input-output model. The strengths and weaknesses of each approach are largely a matter of professional judgement with both seeking to quantify and qualify the larger scale impacts associated with major projects. (p77)

This is untrue. There is no difference of opinion between the economics profession – cost benefit analysis is the only technique that estimates net benefit. This is clearly the position of the NSW Treasury:

[I] Model based economic impact assessment is not a substitute for a thorough economic analysis of a policy. The appropriate method for analysing policy alternatives is benefit cost analysis (BCA)²

The RTS argues incorrectly that benefits “will become apparent if and when the application is made to transition the E&A Program into the Narrabri Gas Project” (RTS p77). The main benefits to the state could be calculated by the proponents now – royalties and other payments. Indeed it is at this stage of the planning process that such analysis should be

¹ (NSW Treasury, 2012)

² (NSW Treasury, 2009)

carried out, to inform decision makers about the benefits and costs of the project before proponents spend unnecessary money on the project which could end up as sunk costs.

Indeed, considerable analysis of Santos' end project has already been carried out. Analysis commissioned by Santos suggests that beyond the initial construction phase:

- Only 16 jobs would be created in the Northern Central Plains region and 22 in the Northern Slopes region, a total of 168 in regional NSW³.
- Only around 30 of these jobs are actually in the gas industry.⁴

Overall, the economic impacts of both the current proposals and the later project are minor and overstated in their assessment.

Justification

The Department's recommendation report is wrong when it says:

It is generally well accepted that contracted gas supply levels will drop significantly by 2017 due to factors including a strong demand for gas in other states and for export, decreasing reserves and constraints on infrastructure. Low levels of securely-contracted supply are expected to coincide with growth in energy consumption in all sectors.(p14)

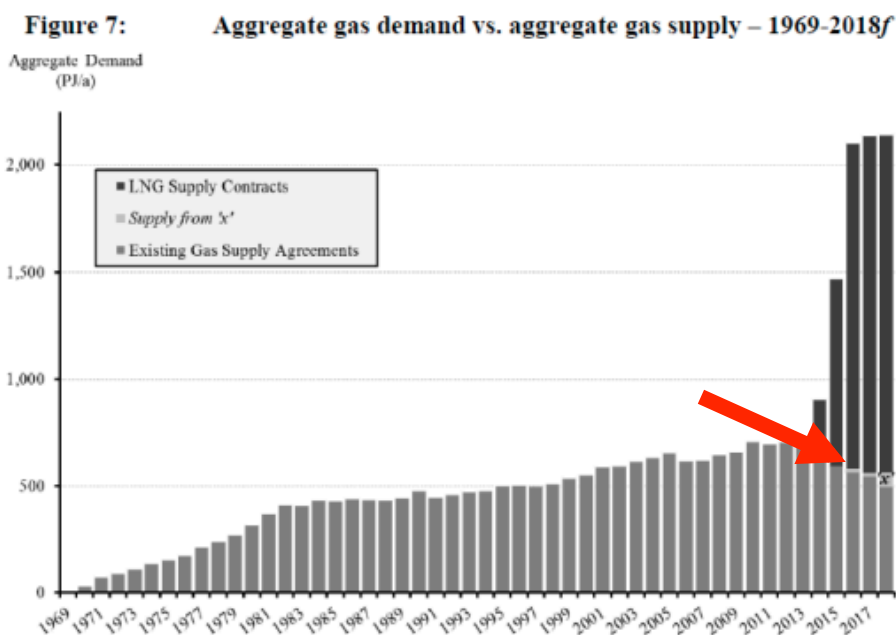
Gas supply on the Australian East Coast is forecast to increase enormously. There is no shortage of supply, but prices will rise to levels that equate to export prices as the East Coast market will be linked to world prices via new export facilities in Gladstone.

Gas users looking to secure contracted supply face not a lack of supply, merely higher prices. This is clear from analysis compiled by energy company and coal seam gas proponent AGL. The gap they are predicting between supply and domestic demand is minute, represented by the area marked "x" in Figure 1 below:

³ (Allen Consulting Group, 2011) see Table 3.1, p18

⁴ (Allen Consulting Group, 2011) see Figure 3.2, p16

Figure 1. Potential NSW gas shortfall



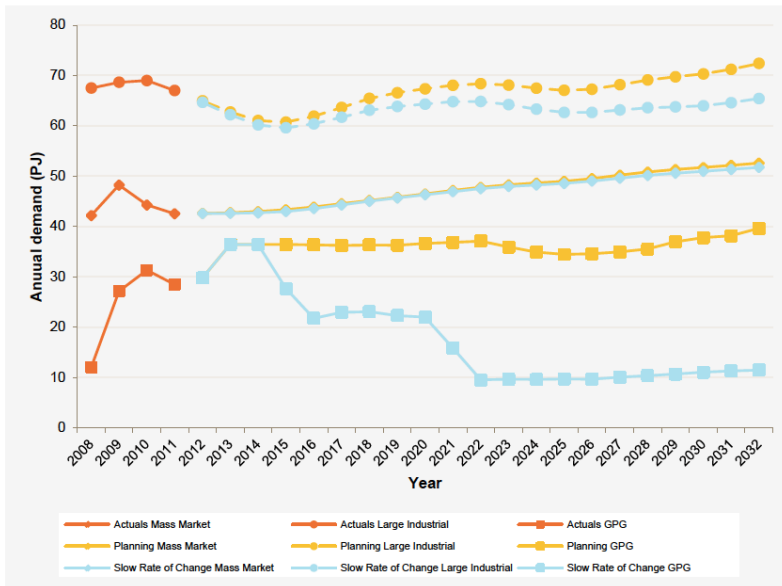
Source: (AGL, 2014)

This small shortfall will be easily accounted for by suppliers either paying more for contracts, or consumers using less gas as a result of price rises. This economic reality is not incorporated in AGL's modelling. Even so we see in the later years of Figure 1 that domestic gas use in Australia is declining and forecast to decline further. This contradicts the Departments Recommendation report which states:

Low levels of securely-contracted supply are expected to coincide with growth in energy consumption in all sectors. (p14)

The Department ignores trends in both declining electricity consumption and falling gas consumption in all sectors as shown in Figure 2 below.

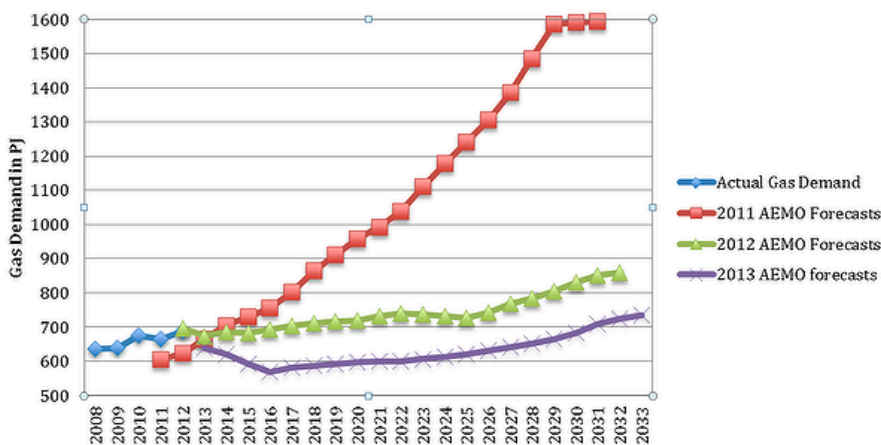
Figure 2: Annual demand projections by segment and scenario, New South Wales (including ACT)



Source: AEMO Gas Statement of Opportunities (2012)

Even the very modest increases in gas demand in some sectors projected by AEMO in the longer term could well be overstated. AEMO has consistently forecast demand increases, when gas demand has been falling since 2009-10 (see Figure 2 above). The dramatic reduction in AEMO’s gas demand forecasts can be seen in figure 3 below.

Figure 3: AEMO East Coast gas demand forecasts.



AEMO gas forecasts vs actual demand. Source: Bruce Robertson

Source: West (2013) AEMO gas forecast and actual production data collated by Bruce Robertson.

A recent report by Credit Suisse has pointed out that Santos has acknowledged that its gas export project was always deliberately aimed at increasing domestic gas prices.

..quite clearly at face value this [GLNG] has been a materially unappealing project,...

Santos now argues that its aim in GLNG was always as much about raising the domestic gas price, and therefore re-rating large parts of its portfolio outside of GLNG, as it was about the project.

..with a ~0.8 per cent drag on Australian GDP from every \$2GJ rise in the domestic gas price, this view certainly would not have been terribly popular with politicians who approved the project.⁵

The Narrabri Gas Project is an attempt by the Santos to capitalise on the higher domestic gas prices by selling more gas to NSW consumers at the export-linked prices they have helped bring about.

All east coast gas prices will now be linked to global gas prices and increasing coal seam gas supply in NSW from this project or elsewhere will not change this.⁶

Greenhouse gasses

The rising price of gas will lead to reduced demand on the East Coast gas market. This change has consequences that are ignored by the Department in their recommendation report:

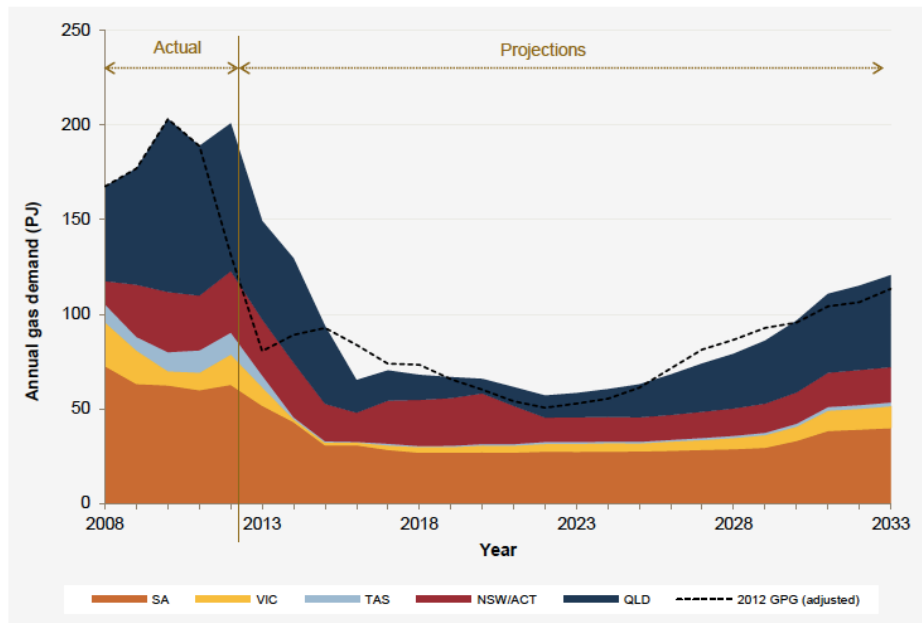
The use of gas in power stations has the benefit of a significantly lower greenhouse gas emissions profile compared to more traditional coal-fired power stations. The Department notes that substituting coal for gas equates to an annual emissions reduction in the order of 68,500 tonnes of greenhouse gases for each 20 megawatts (MW) of electricity production.

As shown in Figure 3 below, demand for gas for power generation GPG is falling dramatically across Australia, including in NSW. One of the reasons for this the increase in gas prices as a result of gas export price linkage.

⁵ Credit Suisse. (2014)

⁶ Grudnoff (2013)

Figure 4: Annual Gas Powered Generation GPG demand by demand group



Source: AEMO Gas Statement of Opportunities 2013

Any greenhouse emissions advantage of CSG is highly contested. The drop in demand for gas powered generation means that little of the gas eventually produced by the Narrabri Gas Project is likely to be used for power generation.

Another crucial issue is the level of fugitive emissions. In Australia assumptions of leakage rates from gas fields are largely based on assumptions from US studies. Actual measurements of concentrations of methane concentrations around gas fields US have found leakage levels of up to 9%, far higher than those assumed in Australia and the US,⁷ which would make electricity generation from gas far more emissions intensive than coal.⁷ Preliminary studies based on actual measurements of CSG fields in QLD have also identified similarly high concentrations.⁸

Conclusion

Prominent economist and commentator Ross Gittins has described the gas industries attempts to persuade policy makers of the need for coal seam gas for NSW's domestic power supply as "a con".⁹

Despite this, the Department of Planning and Infrastructure's main justification for the project is that gas from the Narrabri gas field is necessary for the state's gas supply.

The gas industry's own analysis shows that any gas shortfall in NSW is caused not by lack of supply, but by rises in price. This will result in either suppliers paying more for contracts, or

⁷ Petron 2012.

⁸ Santos and Maher 2013

⁹ Gittins 2013

consumers using less gas as a result of price rises. Gas prices in NSW will not be reduced by any additional gas from the Narrabri gas field, as they will be linked to global prices.

Credit Suisse has pointed out that the proponents themselves have acknowledged that their QLD export project was largely aimed at increasing domestic gas prices, at considerable cost to the wider Australian economy.

The economic assessment of the project has been inadequate. The Director General's requirements state clearly that the proponent is required to show a net benefit to the community of NSW. The proponents have failed to undertake a Cost Benefit Analysis to establish this, and the project should not be approved until this has been undertaken.

Overall, the economic impacts of both the current proposals and the later project are minor and overstated in the proponent's assessment.

The Department has misrepresented the impact of these projects on greenhouse gas emissions. Increasing gas exports means less electricity is likely to be generated with gas in Australia and fugitive emissions mean the overall greenhouse emissions of the projects are likely to have been underestimated.

Given the likely minimal economic benefit of the project and its potential to damage groundwater sources we recommend the PAC reject both projects.

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