



Submission on Dewhurst Gas Proposal Environmental Impact Statement

Socio-Economic Assessment

Prepared by

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December 2013

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**Citation:**

Economists at Large, 2013, *Submission on Dewhurst Gas Proposal Environmental Impact Statement Socio-Economic Assessment*, prepared by Economists at Large, Melbourne, Australia.

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## INTRODUCTION/SUMMARY

Economists at Large welcome the opportunity to make a submission on the environmental impact statement (EIS) of the Dewhurst Gas Exploration Pilot Expansion proposal. The Dewhurst proposal is for the construction and operation for three years of coal seam gas (CSG) wells south of Narrabri, NSW. The EIS was conducted by consultants RPS Australia East Pty Ltd (RPS).

While the EIS includes some discussion of the economic impacts of the project, it does not fulfil the Director General's Requirements (DGRs) for assessment of the project, which include a requirement for:

*An assessment of the costs and benefits of the development as a whole, and whether it would result in a net benefit for the NSW community.*

To trained economists, this is a clear requirement for cost benefit analysis. All costs and benefits to the NSW community should be discussed and ideally quantified and net benefit assessed over the life of the project. This would include potential costs to the NSW community such as health impacts and environmental damage, as well as detailed discussion of royalty revenue and whether profits will accrue to investors in NSW or be repatriated overseas.

This requirement is commonly included in DGRs for major projects and has almost always been interpreted as such. See for example (ECS, 2013; Gillespie Economics, 2013). Because of this requirement specific guidelines for cost benefit analysis of mining and CSG projects were issued by NSW Treasury in conjunction with the Department of Planning last year (NSW Treasury, 2012). These guidelines build on earlier Planning guidelines, which state:

***To conduct a proper economic evaluation of the options associated with a proposed development that is likely to have significant environmental impacts it is essential to undertake a benefit-cost analysis.*** (Gillespie & James, 2002)(p8, emphasis in original)

It is therefore puzzling that RPS have not conducted cost benefit analysis. This oversight should be corrected before any decision regarding the project is made. Instead of cost benefit analysis, RPS have referred only to:

- The role of CSG in NSW gas supply
- Employment effects calculated through multiplier analysis

On both of these points RPS's discussion is misleading. The development of CSG in NSW will have a minimal effect on supply available to NSW consumers and the prices they will pay. Their use of multiplier analysis heavily overstates the employment effects of the project, which are likely to be minimal.

In summary, we conclude there is minimal benefit to the expansion of CSG extraction for the NSW community, while there are potentially large environmental costs to aquifers and human health. We recommend against approval of this project on these grounds.

## NSW GAS SUPPLY

While RPS do not provide any detailed economic analysis of the Dewhurst proposal, they make the claim that:

*The proposed activity, as part of the E&A Program, has the potential to play a role in the delivery of a secure supply of domestic gas for NSW, as well as alleviate potential gas supply shortages which may expose NSW to significant energy price increases if approvals for production are sought and granted. (RPS, 2013)p2*

The implication expressed here that NSW does not have a secure supply of gas is false. NSW is part of Australia's eastern gas market, which has annual demand of between 600-700 petajoules per year. Existing facilities can provide for this level of demand for the long term. There is no threat to NSW supply of gas (Grudnoff, 2013).

NSW gas prices will rise significantly in the next few years. The reason for this is the commencement of gas exports from the eastern market. The eastern market has not historically exported gas from Australia to the world market and this isolation has meant prices have been low relative to world prices. Once the eastern market is linked to world markets, prices paid by NSW gas consumers will be determined by the world market (less processing and transport costs). The development of coal seam gas in NSW will have minimal impact on NSW gas prices once this link has been made (Grudnoff, 2013). RPS's suggestion that the Dewhurst project could affect NSW and world gas prices is clearly false.

## INAPPROPRIATE USE OF MULTIPLIER ANALYSIS

Instead of cost benefit analysis, the social and economic section, chapter 18, focuses on the results of a multiplier model (also known as an input-output model) of the projects economic impacts. Despite claiming in section 18.2 to have developed an input output model of the project, none of the model's assumptions or inputs are discussed. More surprising still, almost none of the model's results are presented. Only the estimate of indirect employment is mentioned.

The lack of transparency around this model should be of concern to decision makers, particularly as the assumptions in such models ensure that the positive economic impacts will be exaggerated while the costs are ignored. Key assumptions in this model include:

- No resource constraints – the model assumes that there is an infinite amount of skilled labour and other inputs that can be used by the project. In reality skilled workers and other inputs are scarce in the region.
- Fixed prices – the model assumes that even though the project is and located in a small economy, wages, rents and costs will be unaffected. In fact the region has seen significant changes in prices for land and labour.
- Not appropriate for small areas – RPS claim to have developed their model from national level input output tables, with no consideration of the constraints and realities of small regional economies. This is clearly against the recommendations of the ABS (ABS, 2011)

Because of these flaws bodies such as the ABS, the Productivity Commission and the NSW Land and Environment Court have labelled this approach as “biased”, “abused” and “deficient” (ABS, 2011; Gretton, 2013; Preston, 2013). Decision makers should be wary of basing any decision on this form of analysis, particularly when there has been no cost benefit analysis and there is minimal transparency around the model’s assumptions.

## OTHER COSTS OF CSG EXPANSION

The RPS analysis makes no attempt to quantify in economic terms some of the wider costs of CSG expansion such as:

Fugitive emissions and full greenhouse gas emissions of CSG

Health impacts

Impacts on water resources

See (Moss, Coram, & Blashki, 2013) for recent examination of these issues. The NSW guidelines on cost benefit analysis for coal seam gas projects is explicit that these costs should be considered in economic assessment.

## CONCLUSION

The economic assessment of the Dewhurst gas proposal is inadequate for decision making purposes. It does not fulfil the director general’s requirements for the environmental impact statement as it lacks any form of cost benefit analysis. The implication that the project could have an impact on NSW gas prices and supply is contradicted by any serious analysis of the eastern gas market.

Instead of thorough cost benefit analysis, RPS have used multiplier analysis, with minimal transparency. This method is not recommended for project assessment, as explained by the ABS, Productivity Commission, NSW Treasury and NSW Land and Environment court. Part of the reason being this method ignores the wider costs of projects on health and the environment. Economists at Large recommend against further consideration of the Dewhurst gas project at least until adequate economic assessment has been conducted, that finds a net community benefit from the project.

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