Economic impact of the proposed Watermark open-cut coal mine

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Review Findings

The analysis has a number of critical deficiencies that draw into question the economic merit of the mine.

Finding 1: The economic assessment does not comply with NSW Government guidelines or the Director General's requirements.

Finding 2: The economic assessment over-estimates the benefits and under-estimate the costs, such that the claimed net public benefit is not realistic.

Finding 3: The analysis ignores the unique nature of the Liverpool Plains agricultural industry with its coincidence of high quality soils and secure water supply.

Does the mine deliver a net public benefit?

In considering the public interest implications of the Watermark mine, our key conclusion is that the claimed net social benefit of $3.28 billion is not realistic.

Cost/Benefit Item	Extent of over-estimate	Source
Revenue from thermal and semi-soft coking coal	$2.2 billion	NSW Trade and Investment: Resources and Energy
Non-market employment benefits	$0.3 billion	NSW Land and Environment Court, previous PACs and empirical evidence
Operating costs	$0.8 billion	Reserve Bank of Australia – industry average
TOTAL	**$3.3 billion**	

When these over-estimates are combined the mine would no longer be economically beneficial. If you then factor in economic impacts on adjacent agricultural land it would not result in a net public benefit.

Government requirements have not been met

Compliance with the DGRs and NSW Treasury guidelines is essential to ensure an unbiased, verifiable and transparent economic assessment is undertaken.

1. The Director General's requirements have not been met because the analysis:
   - does not pay "*particular attention to the impacts of the project on strategic agricultural land use in the areas surrounding the project*"; and
   - does not meet the Director General's requirement for a "*detailed assessment*".

2. The NSW Government Guidelines for Economic Appraisal (TPP07-5) which are issued by NSW Treasury, have not been bet because:
   - "*All relevant cost items which can be identified, quantified or estimated must be included*";
   - "*Assumptions underlying all estimates should be made explicit in the evaluation*"; *and*
   - "*worst case*" outcomes have not been evaluated.

Over-estimates the benefits

Coal price projections are critical to the results of the economic analysis, so they must be transparently reported and justified.

The only detail available on the coal price assumptions is:

- *"Projected prices for the Project product thermal coal were provided by Shenhua Watermark and averaged AUD $142/tonne for coking coal and AUD$99 per tonne for thermal coal"* Gillespie Economics (2012).
- *"Projected coal prices included in the BCA for product coal of the Project were based on detailed studies for the Project (GHD 2011)"*. But, the GHD report has not been provided despite being requested.

Economic analysis is highly sensitive to the assumed coal price

The NSW Resources and Energy submission (October 2014) estimates that the present value of coal sales should be $5.9 billion (not $8.1 billion), a reduction of $2.2 billion.

This analysis assumes:

- **Thermal Coal**: current prices (around AUD$80 per tonne) for the next three years and gradually increasing to AUD$115 per tonne. This equates to an average real price of around AUD$95 per tonne.
- **Semi-soft coking coal**: current prices (around AUD$100 per tonne) for the next three years and gradually increasing to AUD$135 per tonne. This equates to average real price of around $115 per tonne.

The market has changed considerably since 2011. Whitehaven Coal (which operates the nearby Werris Creek mine) reported in September 2014:

- *"an average price for its export thermal coal sales of US$68/t (AUD$80/t)."*
- *"US$87/t (AUD$102/t) for SSCC (semi-soft coking coal)."*

Royalties

Royalty payments to the NSW Government are fundamentally linked to the assumed coal prices and availability of deductions.

The economic analysis identifies royalties of $565 million (PV), as a key justification for the project.

Marsden Jacob estimate that the royalty payments would total around $200-250 million (present value), if threshold coal prices are received and deductions are accessed. Alternatively put, Shenhua might only pay the NSW Government **$18-20 million per annum on average**.

Finally, royalties are financial transfers between the proponent and the NSW Government. While they represent a financial gain to NSW, the economic analysis of the project needs to focus on the net economic benefit/loss of the project not royalty payments to NSW.

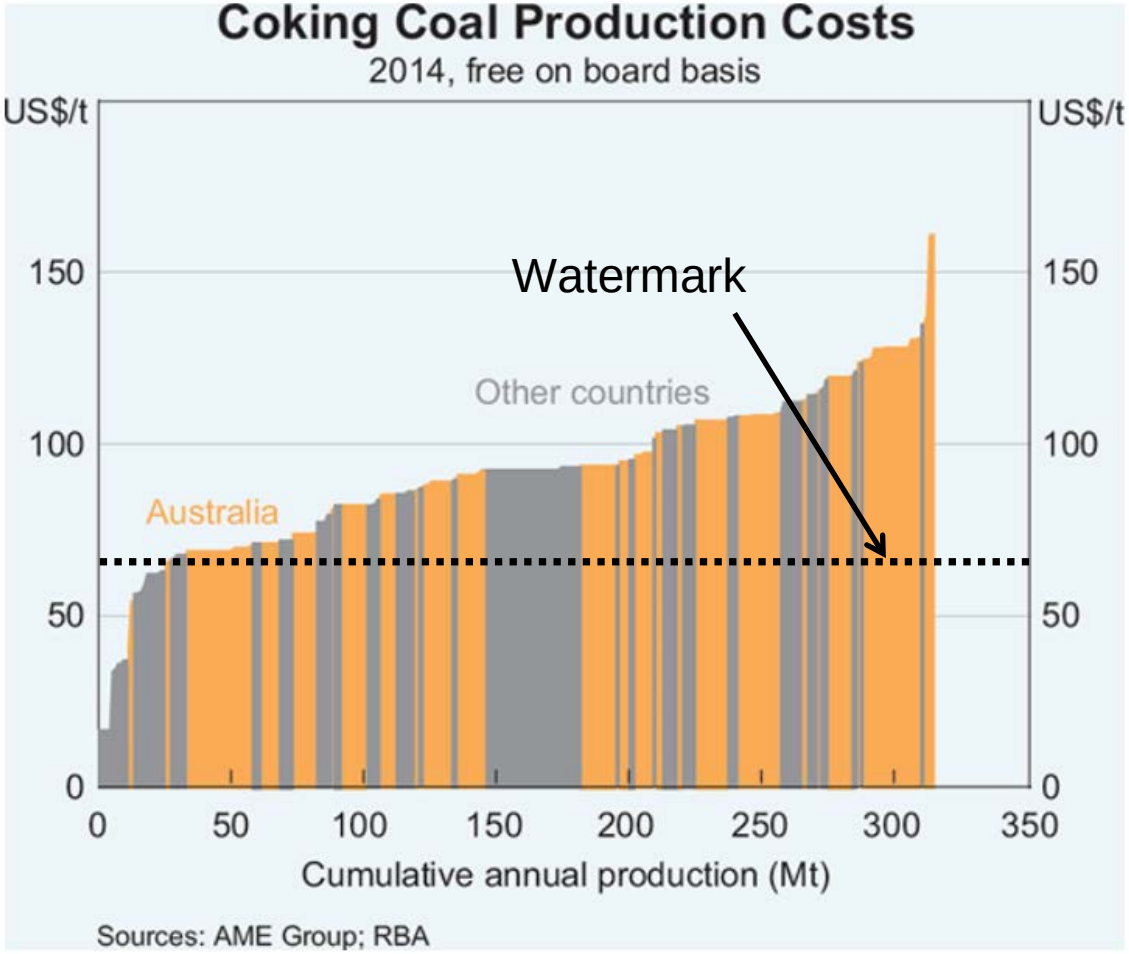
Under-estimates the operating costs

The economic assessment appears to under-estimate the cost of the proposed mine:

- The economic assessment assumes that the Watermark mine's operating cost is $332 million pa, or $63/t.
- Recent analysis by the Reserve Bank of Australia reveals that these operating costs are well below industry averages.

RBA (2014) Statement on Monetary Policy, http://www.rba.gov.au/publications/smp/2014/aug/html/eco-outlook.html

RBA – Coking Coal Production Cost



Orange columns = Australian coking coal mines

Grey columns = Overseas coking coal mines

RBA (Aug 2014): *"at current prices, there is a sizeable amount of coal and iron ore production (in Australia) that is unprofitable".*

Under-estimates the economic costs

Many of the presenters to the PAC have highlighted that they are very concerned about the impact this mine will have on their farming businesses.

The NSW Department of Primary Industries (2013) requested that impacts on local land be comprehensively evaluated: *"No data is provided in the AIS regarding the potential impact on local land values due to the project. Relevant data and summary statistics need to be analysed and presented by the proponent in order for an evaluation to be made"*.

The materiality of this issue has been confirmed by NSW Land and Property Information (2014): "*Property professionals working in the Gloucester area report that … potential purchasers have an aversion to the CSG and mine areas of Gloucester but* ***the main concern is the mine***".

As the PAC is aware this decision needs to be balanced based on an informed understanding of the impacts on the Liverpool Plains. The Liverpool Plains agricultural industry benefits from a coincidence of quality soils and secure water supply. These features cannot be replaced and adverse impacts will be lasting.

These criticisms are not new

The economic assessment of mining projects in NSW has been the subject of serious and sustained criticism, for instance:

- Chief Judge Preston (2013) Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited, NSWLEC 48
- NSW Planning Assessment Commission (2014) Stratford Extension Project Review Report
- NSW Planning Assessment Commission (2014) Wallarah 2 Coal Project Review Report

CJ Preston: *"I am not satisfied that the economic analyses provided on behalf of Warkworth support the conclusion urged by both Warkworth and the Minister, namely that the economic benefits of the Project outweigh the environmental, social and other costs."*

Stratford PAC: *"The economic value of the project as described in the EIS and in subsequent documentation provided by the Proponent is not credible".*

Wallarah 2 PAC: *"In considering the merits of the project as a whole the Commission has found that the benefits claimed for the project by the Proponent (and largely adopted by the Department's Preliminary Assessment Report) are not credible".*

Conclusion

In conclusion, the analysis:

- Lacks critical and necessary transparency to enable informed assessment of the project's economic merit.

- Is not economically beneficial when:
  - Realistic thermal and semi-soft coking coal prices are used,
  - Average (not inexplicably low) operating costs are included, and
  - Non-market employment benefits are excluded.

- If you then factor in economic impacts on adjacent agricultural land the project would not result in a net public benefit.

- Are annual royalties of only $18-20M from this mine worth risking the agricultural future of the Liverpool Plains?

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