

Narrabri underground - submission on additional material

The additional material produced by the applicant and Department of Planning and Environment updates part of the economic assessment but ignores the unrealistic benefit calculations. Importantly, carbon prices have not been updated. At current European prices, in line with relevant guidelines, the cost of direct emissions is \$1,479 million. This alone makes the project uneconomic under most emissions valuation approaches.

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INTRODUCTION

The Australia Institute welcomes the opportunity to submit on the additional material provided to the Independent Planning Commission (IPC) by the applicant, Whitehaven Coal, and the Department of Planning and Environment (the Department). Our earlier submission highlighted that the project is emissions-intensive and that applying even modest value to emissions causes the net present value (NPV) of the project to decline to zero, meaning the project represents a net reduction in community welfare and should be refused.

SUPPLEMENTARY MATERIAL ON ECONOMICS

The supplementary material provided by the Department includes an appendix from AnalytEcon, the economic consultant retained by Whitehaven. AnalytEcon state that they have updated calculations to incorporate updated Scope 1 and 2 greenhouse emissions. The update is reproduced below:

Table 1: AnalytEcon “Alternative Project emissions valuation”

Price Assumption	Adjusted by NSW’s Share of Global GDP		Adjusted by NSW’s Share of Australia’s Population	
	Externality Cost of Greenhouse Gas Emissions to NSW (NPV)	Net Benefit to NSW (NPV)	Externality Cost of Greenhouse Gas Emissions to NSW (NPV)	Net Benefit to NSW (NPV)
Central price scenario European Union Emissions Trading System	\$1.3M	\$598M	\$138M	\$462M
High price scenario Australian Treasury Clean Energy Future Policy Scenario	\$2.5M	\$597M	\$258M	\$341M
Low price scenario US EPA Social Cost of Carbon	\$0.9M	\$598M	\$93M	\$506M

Note: As of June 2021, NSW’ share of the Australian population was 31.82 per cent (<https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release#states-and-territories>; accessed 21 Jan 2022).

Source: DPE (2022) Narrabri Underground Mine Stage 3 Extension Project Response to IPC information request and tabled Lock the Gate questions, Attachment 1

Table 1 shows the externality cost of greenhouse emissions divided by NSW’s share of global GDP and by Australia’s population. The fact that the latter approach gives a cost roughly 100 times larger than the former shows the importance of how greenhouse gases are considered for this project.

As noted in the Department’s additional material (p9), AnalytEcon did not provide a scenario for apportioning all Scope 1 and Scope 2 emissions costs to NSW, as has been adopted by some decisions and could be justified by the NSW Government policy to reach net zero emissions and by the wider Paris Agreement. The Department made this calculation itself, costs of \$434 million, \$811 million and \$292 million at mid, high and low carbon prices, concluding that applying these costs to the estimated financial benefits of present value \$599 million:

This would lead to a net benefit of \$167 million for the central pricing scenario, \$307 million at a low carbon price, and negative \$212 million for the high carbon price. (p9)

Despite having made some adjustments, the Department and AnalytEcon continue to overstate the NPV of the project by:

- Ignoring the inflation of financial benefits

- Not updating the carbon prices used to the latest data recommended in the technical notes to the cost benefit analysis guidelines.

Overstated financial benefits

The original AnalytEcon economic assessment estimates that the project will produce financial benefits for NSW of present value \$599 million, consisting of approximately \$259 million in royalties, \$177 in NSW share of company tax payments and surplus/profit of \$163 million (NSW resident share).

The NSW share of company tax payments, \$177 million in present value implies a total undiscounted tax benefit of \$1.6 billion. Whitehaven has paid a total of \$15 million in company tax in the last seven years. The \$177 million in present value benefit to NSW included in the Department and AnalytEcon’s NPV calculations is simply not credible.

Our original submission also used stockmarket data to show that the related calculations of producer surplus by AnalytEcon are also heavily inflated.

A more appropriate approach is to compare the carbon value of the project’s Scope 1 and Scope 2 emissions with royalty payments. These payments are the only financial benefits that would accrue to NSW with any degree of certainty if the project proceeds. Table 2 below shows that Scope 1 and 2 climate costs outweigh royalty payments even at AnalytEcon’s low carbon price:

Table 2: Royalties vs Scope 1&2 values (\$m)

	Royalties	Scope 1&2 GHG costs	NPV
C price mid	\$ 259	\$ 434	-\$ 175
C price high	\$ 259	\$ 811	-\$ 552
C price low	\$ 259	\$ 292	-\$ 33

Source: Author calculations based on AnalytEcon (2020) and DPE additional material

UPDATING CARBON PRICE

The original AnalytEcon assessment uses a central estimate of greenhouse gas emissions based on European futures prices, in line with the recommendations of the relevant technical notes and guidelines.¹ This saw a value applied to additional

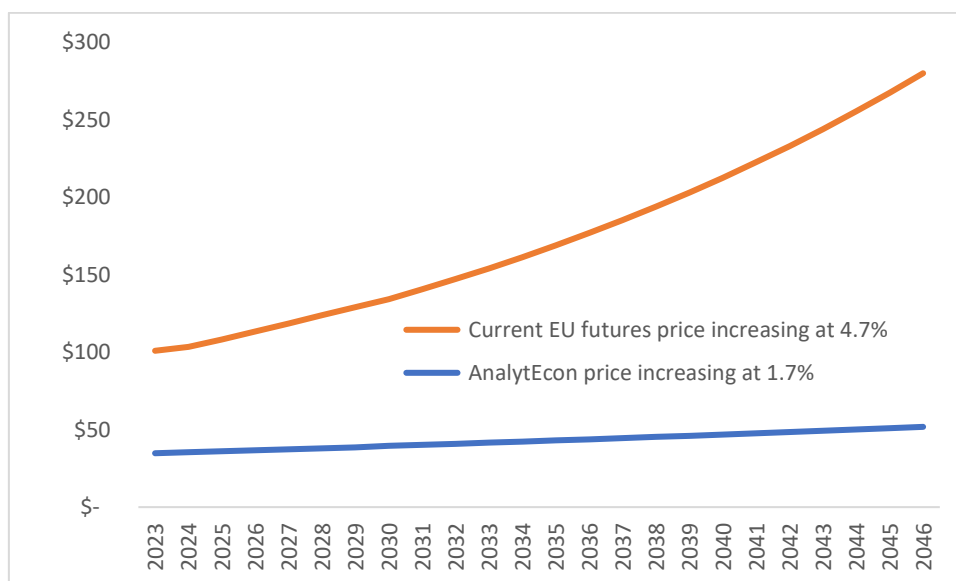
¹ DPE (2018) *Technical notes supporting the Guidelines for the Economic Assessment of Mining and Coal Seam Gas Proposals*, <https://www.planning.nsw.gov.au/-/media/Files/DPE/Other/technical-notes-supporting-the-guidelines-for-the-economic-assessment-of-mining-and-coal-seam-gas-proposals-2018-04-27.pdf?la=en>

emissions of AUD\$34.78 per tonne in 2022, AUD\$39.55 in 2029. Beyond 2029, AnalytEcon assumed that prices increased by 1.7% per year, in line with the 2022-2029 price increase, meaning a price of AUD\$40-50 through the main years project operations.

In the additional material provided by AnalytEcon in March 2022, the carbon price has not been updated from the 2020 European futures figures.

This is important because these prices have seen a large increase since 2020, with settlement price in March 2022 of 67.09 Euro per tonne, or at current exchange rates AUD\$99.49. The 2030 price is 90.53 Euro, or AUD\$134.30 at current exchange rates. This represents an increase of 4.7% per year. Adopting AnalytEcon’s approach of applying this growth rate to the project life, this would see carbon prices of AUD\$147 in 2032 and AUD\$255 per tonne in 2044 when project operations largely end. The comparison of AnalytEcon’s prices based on 2020 European futures to the current prices is shown in Figure 1 below:

Figure 1: Carbon prices used by AnalytEcon vs current European futures prices



Source: AnalytEcon (2020) and EEX (2022) EUA Futures, <https://www.eex.com/en/market-data/environmental-markets/derivatives-market>

Figure 1 shows that carbon prices used by AnalytEcon are just one third of the nearest term futures prices, with prices increasing far faster than included in AnalytEcon’s assessment. Applying carbon price in line with the technical notes and guidelines and following AnalytEcon’s approach to the years past 2030, the present value of the project’s greenhouse emissions is \$1,479 million. This would clearly swamp even the inflated NPV benefits to NSW, or to Australia more broadly, as calculated by AnalytEcon.

This reinforces the conclusion of our earlier submission: that the Narrabri Underground project is emissions-intensive and applying even existing carbon prices to it reduces NPV to zero or lower.

THE “VARIOUS ECONOMIC EXPERTS”

The Department’s additional material states:

As is common with CBAs, the various economic experts have adopted different approaches in attempting to provide a precise quantification of an externality, in this case for greenhouse gas emissions. Through the last five coal mining project assessments, at least six highly credentialled, expert economic consultants have been involved, including BAEconomics, BIS Oxford, Cadence, Ernst and Young, Deloitte and AnalytEcon. (p 8)

The Department gives the impression here that a range of economic opinions have been sought on this issue and while there are some differences to approach, this has no real impact on overall results.

This is incorrect. Most obviously, two of the six “highly credentialled, expert” consultants are the same person. Cadence Economics that was taken over by Ernst and Young, with former Cadence Principal Steve Brown continuing to work on the same projects at EY.

AnalytEcon list on their website an associate, Dr Brian Fisher. Dr Fisher is the principal of BAEconomics.² Dr Fisher is well-known as the controversial former head of the Australian Bureau of Agriculture and Resource Economics (ABARE). During his tenure, Dr Fisher was criticised by the Commonwealth Ombudsman for allowing fossil fuel companies to oversee the agency’s climate change economic modelling in return for funding.³ Dr Fisher produced economic modelling that exaggerated the costs of Labor climate policies in the lead up to the 2019 Federal Election. Dr Fisher stated publicly that his modelling was independent, while Freedom of Information documents show that he released the results in collaboration with Energy Minister Angus Taylor.⁴

² AnalytEcon (2014) *About AnalytEcon*, <http://analytecon.com.au/about-analytecon.html>

³ Commonwealth Ombudsman (1998) *Report of the investigation into ABARE's External Funding of Climate Change Economic Modelling*, https://www.ombudsman.gov.au/__data/assets/pdf_file/0024/26286/investigation_1998_01.pdf

⁴ Seccombe (2021) *The man behind Scott Morrison's climate panic*, <https://www.thesaturdaypaper.com.au/news/politics/2021/11/13/the-man-behind-scott-morrison-s-climate-panic/163672200012870#hrd>

Both Steven Brown and AnalytEcon principal Dr Stephen Beare worked under Dr Fisher at ABARE.⁵ All have produced controversial reports for the coal industry. For example, both Mr Brown and Dr Fisher gave evidence for Gloucester Resources in the Rocky Hill case. Mr Brown's evidence was described in the judgement as "inflated", "shrouded in uncertainty", "orders of magnitude different" to estimates by the NSW Government expert and based on "a number of inputs [that] seem plainly wrong". Dr Fisher's evidence on greenhouse gases was dismissed as "speculative and hypothetical".⁶

The Department claims that BIS Oxford simply "questioned" the approach taken on Tahmoor South greenhouse gas emissions by Steven Brown at Cadence/EY.⁷ In fact, they described it as "dubious" suggested that the Department "seek clarification to verify some of the claims made", as they had a "material effect" and "the assessed price of carbon could rise during the project lifetime".⁸

Deloitte did take a different approach in their assessment of the Maxwell project. The firm also has a long history of working for the coal industry. Steven Brown was also a partner at Deloitte prior to working at Cadence.

In summary, far from having had input from six differing but ultimately reinforcing experts, the Department is referring to the work of three economists that are closely linked to each other and the coal industry, another regular consultant to the coal industry and one critic.

In this context, the IPC should, at the very least, commission a review from a genuinely independent economist. The Centre for International Economics has been used by both the IPC and the Department in the past.

CONCLUSION

The IPC has been presented with additional material that is plainly misleading. Accepting this material without sanction or independent review will simply reinforce the existing culture in the project assessment process that focuses on debate around guidelines rather than on rigour, independence and decision making in the interests of the NSW community.

⁵ AnalytEcon (2014) *Stephen Beare Bio-note*, <http://analytecon.com.au/stephen-beare-bio-note.html>

⁶ NSW Land and Environment Court (2019) *Gloucester Resources Limited v Minister for Planning*, <https://www.caselaw.nsw.gov.au/decision/5c59012ce4b02a5a800be47f>

⁷ Additional material page 8.

⁸ BIS Oxford (2020) *Peer review of economic impact assessment: Tahmoor South Coal Project*. P21