

Moolarben OC3 Extension Project

The economic assessment of the Moolarben project heavily understates its costs and overstates its benefits. At the USA Environmental Protection Agency's central social cost of carbon estimate, the cost of the direct emissions alone is \$156 million, greater than estimated royalty revenue - \$152 million.

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INTRODUCTION

Despite the urgent need to reduce fossil fuel extraction and use, multinational coal company Yancoal is applying to extend the operations of its Moolarben mine near Mudgee in New South Wales (NSW). The economic assessment in the Environmental Impact Statement overstates the benefits of the project and understates its costs.¹ Costs are likely to outweigh benefits to NSW and the project should be refused on economic grounds.

COMPANY TAX PAYMENTS

AnalytEcon estimate the project will make company tax payments of \$82 million (net present value (NPV), discounted at 7%), and that \$26 million of this will accrue to NSW. This is almost certainly an overestimate. Yancoal has never paid company tax in Australia, according to the eight years of data published by the Australian Tax Office.²

¹ AnalytEcon (2022) *Economic Assessment prepared for Moolarben Coal Operations*, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-33083358%2120221104T091011.243%20GMT>

² ATO (2022) *Corporate tax transparency*, <https://www.ato.gov.au/Business/Large-business/Corporate-tax-transparency/>

Economists typically do not have the expertise to make accurate assessments of future company tax payments. AnalytEcon’s approach of simply applying the company tax rate to a crude estimate of taxable income is unlikely to be accurate. Some justification is required given Yancoal’s lack of payments in the past.

A recent Queensland Land Court decision found that a similar estimate for the Waratah Coal project was “optimistic”.³ NSW decision makers should be aware that this claimed benefit is unlikely to be realised.

BIODIVERSITY IMPACTS AND OTHER EXTERNAL COSTS

AnalytEcon assume that efforts to mitigate and offset the environmental impacts of the project will be successful and consider that the budget for this fully internalises these costs. This is an optimistic assumption. There is a high likelihood that there will be residual ecological impacts. Ecologists have long complained that offsets strategies simply do not work.⁴ A similar approach is taken on a range of external costs in the economic assessment.

It is also relevant to note that the proponent has a long history of breaching environmental conditions, having been fined at least nine times for environmental breaches for unauthorised clearing of land, unauthorised discharge of polluted water, noise breaches and breaching production limits.⁵

The Queensland Land Court judgement was critical of Waratah Coal’s economist for not considering whether qualitative assessment of ecological costs was required.⁶

A more considered discussion of the potential costs and risks is important. This has not been done by AnalytEcon and serves to understate key costs and risks of the project.

GREENHOUSE GAS EMISSIONS

The AnalytEcon assessment understates the costs of the greenhouse gasses (GHGs) that the project would emit.

First, a carbon price of \$17.35/t is used. This is inappropriate. The relevant cost to society of GHGs is the social cost of carbon. This is acknowledged in the relevant NSW Planning and

³ Land Court of Queensland (2022) *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21, <https://www.queenslandjudgments.com.au/caselaw/qlc/2022/21>

⁴ See for example Bekessy et al (2010) *The biodiversity bank cannot be a lending bank*, <https://openresearch-repository.anu.edu.au/handle/1885/59680>

⁵ DCCEE (2022) *Moolarben Coal Complex OC3 Extension Project - EPBC Act Referral - Section 6.2*, <https://epbcpublicportal.awe.gov.au/all-referrals/project-referral-summary/?id=f9f7d487-318d-ec11-80d1-00505684c137>

⁶ Land Court of Queensland (2022) op cit.

Environment guidance document, which notes a preference for “market data” in the absence of appropriate estimates of whole of economy costs of climate change.⁷

- Academic estimates of social cost of carbon range from \$AUD235 - \$AUD1,069/t.⁸ This is not an exhaustive survey and is now four years old, therefore current prices are likely to be significantly higher.
- UK government guidance on social cost of carbon ranges from \$AUD216 - \$AUD652.⁹
- USA EPA has proposed a central value of US\$190/t, approximately AUD\$278.¹⁰

At the US EPA’s social cost of carbon, the climate damage of the project’s approximately 800,000 tonnes of scope 1 and 2 emissions is \$222 million, or in NPV terms \$156 million.¹¹ This is greater than the projected NPV royalty revenue of \$152 million. Therefore, using a social cost of carbon well within academic and regulator estimates, the cost of the project’s scope 1 and 2 emissions outweigh the key financial benefit of the project.

The price used by AnalytEcon is based on Emissions Reduction Fund auction figures for Australian Carbon Credit Units (ACCUs). AnalytEcon claim that this is a “reliable market price for the cost of abating carbon emissions in Australia”. AnalytEcon neglect to mention that ACCUs are plagued by controversy around their integrity, with legitimate concern for whether they actually abate emissions. The former chair of the Federal Government’s Emissions Reduction Assurance Committee has labelled the methodologies behind ACCU development “largely a sham”.¹² ACCUs cannot be considered to fully offset emissions and, by using an ACCU price as a benchmark for carbon pricing, AnalytEcon understate the climate costs of the project. The ACCU price references by AnalytEcon is also well below ACCU spot prices (at the time of submission).

The EU Emissions Trading Scheme (ETS) price, suggested as a benchmark in the technical notes, is also not a substitute for the social cost of carbon. ETS prices reflect the ability of participants in that scheme to reduce emissions under a certain cap. While the comparison might be useful for what carbon prices could eventuate in Australia, this does not attempt to reflect the actual cost of GHG pollution to the community. Note, however, that the

⁷ NSW 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>

⁸ Ricke et al (2018) *Country-level social cost of carbon*, <https://www.nature.com/articles/s41558-018-0282-y>

⁹ UK Government (2021) *Valuation of greenhouse gas emissions: for policy appraisal and evaluation*, <https://www.gov.uk/government/publications/valuing-greenhouse-gas-emissions-in-policy-appraisal/valuation-of-greenhouse-gas-emissions-for-policy-appraisal-and-evaluation>

¹⁰ Farah and Clark (2022) *EPA floats sharply increased social cost of carbon*, <https://www.eenews.net/articles/epa-floats-sharply-increased-social-cost-of-carbon/>

¹¹ Discounted evenly over 10 years for simplicity. If discounted the production profile in AnalytEcon’s Figure 2-3, the cost would likely be greater as the bulk of emissions would be in year four, with very little in year 10.

¹² Morton (2022) *Australia’s carbon credit scheme ‘largely a sham’, says whistleblower who tried to rein it in*, <https://www.theguardian.com/environment/2022/mar/23/australias-carbon-credit-scheme-largely-a-sham-says-whistleblower-who-tried-to-rein-it-in>

AnalytEcon sensitivity analysis shows the importance of properly pricing climate impacts – the net benefits of the project to NSW reduce by 42% when the EU ETS price is applied to scope 1 and 2 emissions.

The second means by which AnalytEcon understate the climate impacts of the project is by multiplying its (already low) estimate of climate damage costs by the NSW share of world population. This is inappropriate because:

- It is inconsistent with the carbon budgeting approach that guides global efforts to avoid climate change and which underpins relevant policies such as NSW's net zero emissions goal and the Paris Agreement. Under this approach and these policies, each jurisdiction is responsible for direct emissions such as those from the construction and operation of the mine and the initial transport of coal. Aside from the relevant emissions accounting framework, under a net zero emissions policy, any project that would increase emissions will come at the expense of emitting activities elsewhere in the economy. It therefore imposes an opportunity cost on NSW that needs to be fully included in a state-focused cost benefit analysis.
- Climate impacts are complex and not likely to be distributed in line with population. For example, part of the cost of a tonne of carbon emitted in NSW might be "borne" by Siberia through melting permafrost, which in turn could increase emissions and costs borne by NSW. This approach is not appropriate for assessing costs relating to the inter-linked nature of climate systems.
- It serves to obscure that other jurisdictions bear a large cost of the project and that if these costs are included in the assessment, the costs of the project are likely to outweigh its benefits. This approach sees NSW essentially free-ride on a cost borne by the rest of the world. This point should be made clear to decision makers and other readers.

This approach is not widely used or accepted, nor is it required under NSW guidelines, which ask only for costs to the NSW community. They make no mention of using ratios of state to world population to estimate this cost, suggesting that the authors of the guidelines did not intend for it to be interpreted in this way. The guidelines were developed through an extensive consultation process that The Australia Institute participated in and this approach was never discussed. This approach was rejected by the Land Court of Queensland judgement.

The third way that AnalytEcon understate the climate impacts of the project is by omitting scope 3 emissions. The recent Land Court of Queensland judgement relevantly states:

Whatever might be the practice for a CBA using the NSW or other Guideline, in assessing the public interest in the mine being approved, it is appropriate to consider the impact of GHG emissions caused by the combustion of the coal, there being no other purpose for the coal being extracted. (par 1194)

Applying the US EPA’s draft estimate of social cost of carbon of AUD\$278 per tonne to the scope 3 emissions of the project, estimated at 85.82 million tonnes,¹³ gives a total cost of \$23.9 billion. This huge cost, dwarfing the benefits of the project, should be considered by decision makers, as it has been by the Land Court of Queensland, regardless of what portion of it relates to NSW or is incorporated into a formal cost benefit analysis.

CONCLUSION

The economic assessment of the Moolarben OC3 project heavily understates the environmental costs of the project. The costs of the project are likely to outweigh its benefits. This should not be surprising – using emissions-intensive equipment to unearth millions of tonnes of carbon is the last thing the world’s climate needs. The project should be refused on this basis.

¹³ Yancoal (2022) *EIS Appendix J – Greenhouse gas assessment*,
<https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-33083358%2120221104T091012.052%20GMT>