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## Submission on the revised EIS for the Winchester South project

***The Australia Institute, the recent Waratah Coal court case and the Queensland Treasury raised questions about the economic analysis in the initial EIS. The revised EIS does little to address these questions. The project's scope 1 and 2 emissions alone will negate any financial benefit of the project.***

Submission

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# Summary

The revised economic assessment of the Winchester South Project has not addressed the questions raised in The Australia Institute's earlier submission or by Queensland Treasury. It is astonishing that no analysis is presented of how future changes in global coal markets could impact on the viability of the project. This is all the more problematic given the recent Queensland Land Court judgement on the Waratah coal mine.

Whitehaven anticipates that the Winchester South Project will produce 17.4 million tonnes of scope 1 and 2 greenhouse gas emissions. At the US EPA's latest social cost of carbon estimate, this is a cost of $4.7 billion, or $1.8 billion in present value terms. This dwarfs Deloitte's estimates of $1.7 billion in total or $576 million present value, even though it uses Deloitte's client's data and its preferred central carbon price estimate. The project's greenhouse emissions alone are likely to negate any financial benefit to Australia.

# Introduction

The Australia Institute welcomes the opportunity to make a submission on the revised draft Environmental Impact Statement (Revised EIS) for the Winchester South Project (the Project). [1] This submission focuses on the economic assessment of the Project, Attachment 16 of the Revised EIS prepared by consultants, Deloitte Access Economics, (Revised Deloitte).[2]

The Australia Institute made a submission on the initial draft EIS,[3] which identified several problems in the Deloitte report for that exercise.[4] Key criticisms included:

- No discussion of climate policy and how action on climate change could affect coal markets and the viability of the project.
- Production of lower grade coal despite proponent Whitehaven Coal's stated intention to concentrate on higher grade coal.
- Misleading sensitivity analysis.
- Company tax benefit calculations and historic data.
- Environmental cost discussion and calculation, including greenhouse gas emissions and rehabilitation costs.
- Optimism bias, management incentives and the option value of planning approval.

We note that the revised EIS Additional Information document shows that Queensland Treasury requested more information on similar topics:

- Future thermal coal demand.

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[1] Whitehaven Coal (2022) *Winchester South Project, Environmental Impact Statement: Additional Information,* p122-129. https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/current-projects/winchester-south-project/winchester-south-project-draft-eis-documents

[2] Deloitte Access Economics (2022) *Attachment 16: Additional Information - Economics*, https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/current-projects/winchester-south-project/winchester-south-project-draft-eis-documents

[3] Campbell and Shields (2021) *Last Roll of the Dice: Submission on the Winchester South EIS economic assessment*, https://australiainstitute.org.au/report/last-roll-of-the-dice-submission-on-the-winchester-south-eis-economic-assessment/

[4] Deloitte Access Economics (2021) Winchester South Project – Economic Assessment, https://eisdocs.dsdip.qld.gov.au/Winchester%20South/Draft%20EIS/appendix-k-economic-assessment.pdf

- Coal price and sensitivity analysis.
- Company tax calculations.
- Consideration of scope 1 and 2 greenhouse gas emissions.
- Rehabilitation costs.

It is also important to consider the November 2022, Queensland Land Court judgement in the Waratah Coal vs Youth Verdict case (Waratah case).[5] The judgement considers all of these issues in relation to another greenfield coal mine proposal. The Australia Institute provided expert evidence to the court in this case.[6] In particular, the Land Court rejected the "Market Substitution Argument" (also known as the "Perfect Substitution Argument" or the "Drug Dealers Defence") that in the absence of the proposed mine, another mine would provide perfect substitution of alternate coal, potentially of lower quality.[7]

While the revised Deloitte report makes some improvements on the original, it does not address the key concerns raised in our original submission, or adequately respond to the questions from Queensland Treasury. The Waratah judgement provides guidance on several of these points based on extensive expert evidence.

[5] Land Court of Queensland (2022) *Waratah Coal Pty Ltd vs Youth Verdict*, https://archive.sclqld.org.au/qjudgment/2022/QLC22-021.pdf

[6] Land Court of Queensland (2022) op cit., P1094, P1160, P1170 and P1248

[7] Bell-James (2022) *'This case has made legal history': young Australians just won a human rights case against an enormous coal mine*, https://theconversation.com/this-case-has-made-legal-history-young-australians-just-won-a-human-rights-case-against-an-enormous-coal-mine-195350

# Climate and coal market

The Australia Institute's earlier submission highlighted that the original Deloitte assessment provided no discussion of what impact climate change and the world moving away from fossil fuels will have on the demand for, and price of, coal, nor the viability of the project. Treasury made a similar request.

Astonishingly, the revised Deloitte report makes no attempt to consider the viability of the Project in a coal market impacted by climate policy. It assumes (Figure 3.1) that the project will sell large volumes of relatively low-grade coal out to 2051.

To state the obvious, there is large uncertainty around the future of the markets for both high ash thermal coal and semi-hard coking coal. At the UN climate conference in Glasgow 2021, COP26, more than 40 countries agreed to phase out their end use of coal-fired power in the 2030s and 2040s.[8] To reach the globally agreed warming limit of 1.5 degrees enshrined in the Paris Agreement, coal must be phased out globally by 2040.[9] Deloitte's failure to consider this gives decision makers little understanding of how this project might fare in this very uncertain future.

The Additional Information document also fails in this regard. It simply quotes a Queensland Government document saying that future demand for high quality coal is likely to be stronger than the demand for lower quality coal (p123).

The Waratah judgement relevantly states:

> With declining demand for thermal coal, there is a real prospect the mine will not be viable throughout its projected life and not all the economic benefits will be realised. (P38)
>
> …
>
> The failure of the cost benefit analysis to consider the real prospect of the mine ceasing production for any period limits the assistance it provides this Court in assessing the public benefit of the Project. (P1150)

The judgement also makes the point that for the Waratah Project to be viable, global coal markets would need to demand and supply levels of coal that are not compatible

[8] Harvey et al (2021) *More than 40 countries agree to phase out coal-fired power*, https://www.theguardian.com/environment/2021/nov/03/more-than-40-countries-agree-to-phase-out-coal-fired-power

[9] Climate Analytics (2019) *Coal phase-out*, https://climateanalytics.org/briefings/coal-phase-out/

with Queensland and Australia's climate policies. The same is likely to be true of the Winchester South Project.

It is worth restating that the history of Winchester South indicates the Project is financially marginal. Winchester South was owned by Rio Tinto prior to Whitehaven Coal purchasing it in 2018. Rio Tinto owned the project for over thirty years and yet never developed it despite having the financial and technical capacity to do so.

# Cost of climate impacts

Cost benefit analysis should include consideration of the damage that greenhouse gas emissions impose on the global environment. The revised Deloitte assessment makes reference to the US Environmental Protection Agency's estimate of the social cost of carbon (SCC):

> The forecast US EPA Social Cost of Carbon prices result in the cost of carbon amounting to $79.0 per tCO$_2$-e in FY22 and $131.7 per tCO$_2$-e in FY55. (p24)

While not explicitly stated, it appears that this is the carbon price used in Deloitte's assessment – sensitivity analysis is conducted at the Australian Treasury Clean Energy Future Policy Scenario pricing (lower) and also at the European Union Emission Allowance futures price (higher).

The estimate referred to is the reinstatement of the Obama Administration's recommended value of SCC, updated for inflation. Its reinstatement was ordered by President Biden on his first day in office in response to the Trump administration's moves to exclude international climate costs from public cost benefit analysis. The Biden executive order states that its range is an interim estimate, that will be updated in 2022.[10] The US EPA has recently issued a draft estimate with a central estimate of US$190/t, roughly AUD$270.[11]

While the revised Deloitte report is likely to have predated the US EPA's draft update, the context of it and its likely update should have been included in the revised Winchester South assessment. It had been widely expected to increase,[12] particularly given input from some of the world's most prominent economists. These include Nicholas Stern and Joseph Stiglitz who argued that the interim SCC price was well below what is required to achieve abatement in line with climate commitments.[13]

[10] US Government (2021) Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990, https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf

[11] US EPA (2022) *EPA External Review Draft of Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances*, https://www.epa.gov/system/files/documents/2022-11/epa_scghg_report_draft_0.pdf

[12] Chemnick (2021) *Cost of Carbon Pollution Pegged at $51 a Ton*, https://www.scientificamerican.com/article/cost-of-carbon-pollution-pegged-at-51-a-ton/

[13] Stern et al (2022) A social cost of carbon consistent with a net-zero climate goal, https://rooseveltinstitute.org/wp-content/uploads/2022/01/RI_Social-Cost-of-Carbon_202201-1.pdf; Rennert et al (2021) *The Social Cost of Carbon: Advances in Long-Term Probabilistic Projections of*

Legal contests between US states and Federal Government around SCC have delayed this process, with the US Federal Government recently winning an important legal appeal.[14] All of this should have been noted in Deloitte's revised assessment, given the large increase in climate costs this implies and the sensitivity of the Winchester South project's net present value to climate costs.

Table 1 below uses the greenhouse gas emissions estimates from the updated EIS,[15] and applies the US EPA's draft SCC in Australian dollars (AUD$270).

| Project year | Total scope 1 and 2 GHG emissions (t) | Climate damage cost at US EPA draft 2022 social cost of carbon ($AUD) | Climate damage cost present value @7% discount rate ($AUD) |
|---|---|---|---|
| 1 | - | | |
| 2 | 75,129 | $20,284,830 | $ 17,717,556 |
| 3 | 232,281 | $ 62,715,870 | $ 51,194,832 |
| 4 | 585,092 | $157,974,840 | $120,518,249 |
| 5 | 667,350 | $180,184,500 | $128,469,058 |
| 6 | 736,367 | $198,819,090 | $132,481,555 |
| 7 | 676,281 | $182,595,870 | $113,711,531 |
| 8 | 736,128 | $198,754,560 | $115,676,963 |
| 9 | 679,713 | $183,522,510 | $99,824,086 |
| 10 | 659,917 | $178,177,590 | $90,576,452 |
| 11 | 714,197 | $192,833,190 | $91,613,659 |
| 12 | 700,288 | $189,077,760 | $83,952,787 |
| 13 | 688,767 | $185,967,090 | $77,169,731 |
| 14 | 679,610 | $183,494,700 | $71,162,408 |
| 15 | 729,912 | $197,076,240 | $71,429,499 |
| 16 | 719,720 | $194,324,400 | $65,824,397 |
| 17 | 675,493 | $182,383,110 | $57,737,822 |
| 18 | 649,404 | $175,339,080 | $51,876,507 |
| 19 | 654,264 | $176,651,280 | $48,845,551 |
| 20 | 658,629 | $177,829,830 | $45,954,607 |
| 21 | 729,388 | $196,934,760 | $47,562,322 |

*Population, GDP, Emissions, and Discount Rates*, https://www.brookings.edu/wp-content/uploads/2021/09/Social-Cost-of-Carbon_Conf-Draft.pdf

[14] Phillips (2022) *Appellate court rules Biden can consider climate damage in policymaking*, https://www.washingtonpost.com/climate-environment/2022/03/16/social-cost-of-carbon-ruling/

[15] Whitehaven Coal (2022) Attachment 12 – *Greenhouse gas management and abatement plan*, https://eisdocs.dsdip.qld.gov.au/Winchester%20South/Revised%20draft%20EIS/attachment-12-greenhouse-gas-management-and-abatement-plan.pdf

| | | | |
|---|---|---|---|
| **22** | 713,120 | $192,542,400 | $43,459,355 |
| **23** | 682,945 | $184,395,150 | $ 38,897,582 |
| **24** | 607,507 | $164,026,890 | $32,337,347 |
| **25** | 729,349 | $196,924,230 | $36,283,127 |
| **26** | 652,871 | $176,275,170 | $30,353,790 |
| **27** | 453,299 | $122,390,730 | $19,696,385 |
| **28** | 398,719 | $107,654,130 | $16,191,419 |
| **29** | 422,769 | $114,147,630 | $16,044,912 |
| **30** | 51,722 | $13,964,940 | $1,834,534 |
| **31** | 34,714 | $9,372,780 | $1,150,724 |
| **Totals** | 17,394,945 | $4,696,635,150 | $1,819,548,748 |

Sources: Whitehaven Coal (2022), US EPA (2022)

As shown in Table 1, Whitehaven anticipates that the Winchester South Project will produce 17.4 million tonnes of scope 1 and 2 greenhouse gas emissions. At the US EPA's latest social cost of carbon estimate, this is a cost of $4.7 billion, or $1.8 billion in present value terms. For simplicity we have applied the same discount rate as Deloitte, notwithstanding debate around discounting climate impacts, and kept US EPA figure constant over time.

This dwarfs Deloitte's estimates of $1.7 billion in total or $576 million present value, even though it uses Deloitte's client's data and its preferred central carbon price estimate. It is clear that the project's greenhouse emissions alone are likely to negate any financial benefit to Australia.

Deloitte further downplay the cost of greenhouse gas emissions by multiplying their estimates by 20%, roughly Queensland's portion of Australian population. This is inconsistent with the carbon budgeting approach inherent in Australia and Queensland's net zero emissions policies. This approach of benchmarking emissions against population was also explicitly rejected by the Waratah judgement.

# Conclusion

The Revised EIS claims the Project will provide a net economic benefit of $882 million to Queensland. In the face of declining future coal demand this claim verges on either amazing or absurd. The fact Rio Tinto owned the Project for over thirty years, drilled around 1250 holes on the site and chose not to develop it, and the refusal to address serious questions about the economic analysis, indicate it is more likely to be the later.

For much the same reasons as the Queensland Land Court recommended refusal of the Waratah mining approval, this Winchester South mining approval should be rejected. The environmental externalities (particularly greenhouse gas emissions) have been not valued or under-valued. Revenue and costs are highly likely to be optimistic, especially since this project is marginal.