

Submission on HVO North and South continuation project

As with previous proposals to extend HVO North and South, emissions costs are underestimated and project benefits overstated. On the path to net zero emissions by 20250, coal mine expansions should not be approved, let alone projects the size of HVO.

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INTRODUCTION

The Australia Institute welcomes the opportunity to make a submission on the revised proposal to extend the Hunter Valley Operations (HVO) North and South Open Cut mines (referred to as the project).

In August 2025, the joint owners of the HVO North and South coal mines submitted revised proposals for the expansion of the operations to 2045 and 2042, respectively. The revised proposal followed the removal of the original proposal from the federal Environmental Protection and Biodiversity Conservation (EPBC) approval process for reasons that are unclear.

While the revised plans represent a smaller scale and a shortened timeline, the coal mine still represents the largest coal project in NSW awaiting approval, with significant climate impacts for Australia and across the world, while delivering relatively little in economic benefits to NSW.

As with the original proposal, Ernst & Young (EY) were engaged to conduct an economic assessment¹ (Appendix M of the revised application) of the project using

¹ EY (2025) *Economic impact of the Hunter Valley Operations continuation project*, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-11826681%2120250807T013252.255%20GMT>

broadly the same flawed analysis and assumptions as the two previous economic assessments released in 2022² and 2024.³

This submission follows a similar pattern to other submissions the Australia Institute has made at the state and federal level, detailing how the analysis by EY underestimates the emissions costs, overstates economic benefits, and obscures the likelihood of mine viability through the use of a number of unrealistic assumptions at odds with standard cost-benefit analysis and the reality of a carbon-constrained world.

MISLEADING VALUATION OF GHG EMISSIONS

The valuation of greenhouse gas (GHG) emissions costs in the economic assessment is problematic in two ways. These work together to understate the costs of the additional GHG from the project. If the additional GHG emissions are valued using appropriate carbon prices, there is minimal net benefit to the NSW community.

The two ways the emissions costs are underestimated are:

1. **A mix of carbon prices:** The EY economic assessment effectively uses two carbon prices to evaluate the costs of the emissions from the project. For emissions above the relevant baseline under the *Safeguard Mechanism* (SGM) these emissions are valued using an Australian Carbon Credit Unit (ACCU) price of \$A81/tonne CO₂-e, assumed to increase at 2% a year over the life of the project. An additional 1-1.5 MT of 'voluntary' abatement to meet the NSW Government's *Net Zero Future* policy is also valued at ACCU prices.⁴ Together, these emissions represent around 7 MT of emissions. The remaining emissions, around 8 MT, are valued using US Environmental Protection Agency estimates of the social cost of carbon of \$344/tonne CO₂-e, increasing 1.6% a year. EY refers to this as the *indirect emissions cost*. There are two problems with using ACCU prices. The first is that they do not reflect the true cost of abatement nor a genuine reduction in emissions. Most ACCUs are considered of low integrity,

² EY (2022) *Economic impact assessment of the Hunter Valley Operations continuation project*, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-11826681%2120221219T105215.575%20GMT>

³ EY (2024), *Economic impact assessment of the Hunter Valley Operations continuation project*: 07/05/2024, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-11826681%2120240513T231250.734%20GMT>

⁴ EY (2025), p. 29

some to be fraudulent. Very few represent genuine abatement.⁵ Purchasing ACCUs to meet SGM emissions targets is substantially a wealth transfer to offset developers that does not internalise most of the cost to the community. The second problem is that using ACCU prices goes against advice from the NSW Government's *Economic Assessment Technical Notes*,⁶ which says that market-based carbon prices should not be used if they are biased by the design of the scheme that establishes the prices.⁷ Since ACCU prices reflect the abatement costs of achieving SGM baselines, they are biased to those baselines and do not reflect the social costs of the emissions of the project.

2. **Incorrect allocation of emissions costs to NSW:** As is common in economic assessments of the fossil fuel projects, the emissions costs to NSW are effectively eliminated by multiplying the emissions costs by the share of the NSW population in the global population. In the EY analysis, 0.33% of the total *indirect emissions cost* is allocated to NSW, leading to an indirect emissions cost of only \$3.8 million.⁸ The simple reason why this is inappropriate is that the costs of climate change cannot be quarantined to different parts of the world. It does not matter where the emissions occur; residents of NSW still experience the negative consequences of climate change. Moreover, the NSW Government's *Economic Assessment Technical Notes* says to focus on the costs of abatement for NSW, not the wider Australian or global economy. The recently published *Treasury Policy and Guidelines TPG24-34* includes a time series of future carbon prices that represent just that, the abatement costs within NSW, based on a "shortlist of decarbonisation solutions most relevant to New South Wales".⁹ So, while either the NSW Treasury prices or the US social costs of carbon could be used to estimate the value of emissions, it is clear they should not be watered down by population shares. It is worth noting that in some of the sensitivity analyses conducted by EY, the emissions cost allocation to NSW is increased to the NSW population share in Australia, around 33%.¹⁰

⁵ See for example, Greber (2022) *Former watchdog goes public with carbon credit 'fraud' claims*, <https://www.afr.com/policy/energy-and-climate/former-watchdog-goes-public-with-carbon-credit-fraud-claims-20220323-p5a77o>

⁶ NSW Department of Planning & Environment (2018) *Technical notes supporting the Guidelines for the economic assessment of Mining and Coal seam gas proposals*, <https://www.planning.nsw.gov.au/sites/default/files/2023-03/technical-notes-supporting-guidelines-economic-assessment-mining-coal-seam-gas-proposals.pdf>

⁷ NSW Department of Planning & Environment (2018), p.48

⁸ The *direct* emissions covered by SGM are valued at ACCU prices and fully applied to NSW.

⁹ NSW Treasury (2025) TPG24-34 *Carbon emissions in the Investment Framework*, <https://www.nsw.gov.au/departments-and-agencies/nsw-treasury/documents-library/tpg24-34>

¹⁰ EY (2025) Appendix C, p. 46

While this is a step in the right direction, it still ignores the advice of the NSW Government that emissions costs should reflect the cost of abatement within NSW.

Applying the US social costs of carbon and the NSW Treasury costs of abatement in NSW generates high and low estimates of the cost of emissions for the project. Using the US social costs of carbon increases the emissions cost in NPV terms by \$2.7 billion. Using NSW Treasury prices increases the emissions cost by \$1.5 billion.¹¹ This increases the emissions cost for the project by between 750% and 400%, compared to the EY estimates.

Finally, cost benefit analysis typically omits the scope 3 emissions of burning coal from the project, because cost benefit analysis generally assumes that the wider economy is not affected by the project in question. However, in the real world, scope 3 emissions from coal mines are very large and are usually considered an important consideration for decision makers. At the US EPA social cost of carbon, the scope 3 emissions of the project are valued at \$16.6 billion in undiscounted terms and just over \$8 billion in present value terms discounted at 7%. (While 7% is the standard discount rate for cost benefit analysis in NSW, it is not an appropriate discount rate for valuing relatively certain climate impacts – many specialists in economics of climate change recommend a discount rate of zero.¹²) This means that if just 13% of scope 3 emissions alone are additional, they would outweigh the key benefit of the project - \$2.2 billion in royalties.

RELYING ON A COAL MARKET OUTLOOK THAT WOULD COOK THE WORLD

In the economic assessment, EY for the most part simply assumes the project can operate to 2050, exporting over 15MT a year into the mid-2040s, giving little regard to the future uncertainty around global coal markets.

¹¹ Both estimates account for ACCU payments already included in the cost-benefit calculation.

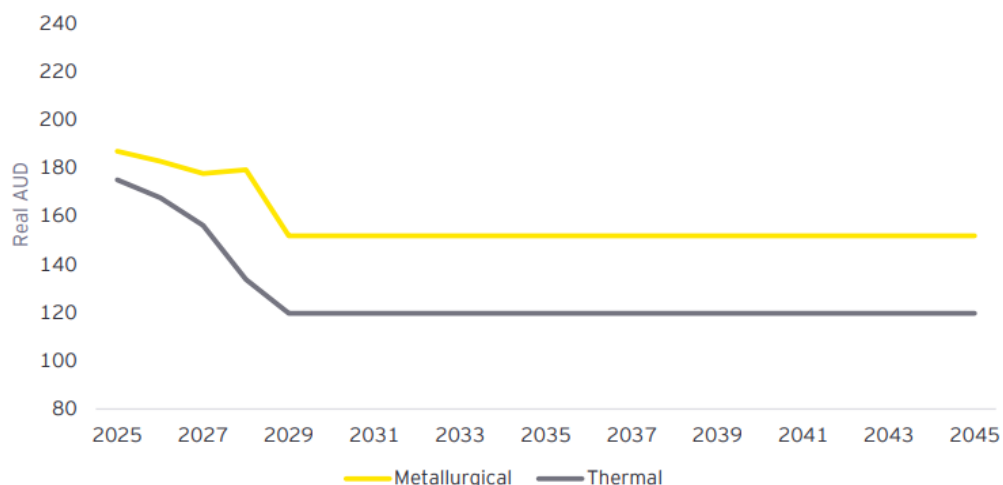
¹² See for example World Bank (2022) *Using a zero-discount rate could help choose better projects and help get to net zero carbon*, <https://blogs.worldbank.org/en/governance/using-zero-discount-rate-could-help-choose-better-projects-and-help-get-net-zero-carbon>

At the UN climate conference in Glasgow 2021, COP26, more than 40 countries agreed to phase out their use of coal-fired power by the 2030s and 2040s.¹³ To reach the globally agreed warming limit of 1.5 degrees enshrined in the Paris Agreement, coal must be phased out globally by 2040. To state the obvious, while there is no uncertainty about the impact on the climate of burning coal, there is significant uncertainty around the future of the thermal coal and semi-soft coking coal markets.

To simply assume the project can successfully find and keep buyers of 15MT a year of coal assumes either the owners of the mine are the world's greatest coal salespeople, or a seaborne coal trade market outlook that is incompatible with climate scenarios that include a habitable planet.

The coal prices used in the economic assessment, reproduced in Figure 1, suggests EY and mine owners are assuming a coal market that is incompatible with a habitable planet. The coal prices for the project are assumed to continue the recent downward trend that followed the spike in global energy prices with the Russian invasion of Ukraine, to conveniently level out and remain constant from when the project reaches full production, around 2029, until 2045. Quite simply, stable coal prices do not align with a coal market outlook where the global demand for coal is falling.

Figure 1: Coal price assumptions used by EY in the economic assessment



Source: EY estimates based on KPMG published Coal Price and FX consensus forecasts March/April 2025.

Sources: EY (2025) Figure 7, p. 20

¹³ 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>

While there is some sensitivity analysis around the coal price assumptions, the *25% lower coal price scenario*¹⁴ keeps the assumed coal prices within pre-Russian invasion historical averages. This shows that this sensitivity scenario is *also* not reflective of a coal market outlook that is on a path to phasing out coal by the 2040s.

Additionally, as described in the next section, while a 25% reduction in coal prices would undermine the financial viability of the mine, it would still generate ‘benefits’ to NSW, due to the assessment’s selective reporting of results and questionable assumptions.

OBSCURING THE LIKELIHOOD OF THE PROJECT BEING UNVIABLE

The analysis provided by EY in the economic assessment ignores the possibility that the project could be delayed, spend periods in care and maintenance, have periods of lower production, or be shut down early. By selective reporting of the results, EY can ignore the real possibility that the project is not financially viable under many scenarios, and yet still claim the project has ‘benefits’ to NSW. This raises the obvious question of why the NSW Government would approve a project that has a strong chance of being unprofitable.

Table 9 from the economic assessment report shows that, despite the big claims, even on EY/Yancoal/Glencore’s numbers, minor changes would see the project become financially marginal.¹⁵ A reduction in revenue of just 16% or an increase in costs of 19% would make the project unprofitable. It is worth keeping in mind that the *low coal price sensitivity* scenario, discussed in the previous section, had coal prices falling by 25%, which would lead to a fall in revenue of a similar magnitude and make the project unprofitable.

The EY analysis can ignore and obscure the risk of the project being unprofitable by not having to include the profit, or producer surplus, in the formal cost-benefit calculation. The cost-benefit analysis focuses on the impacts on NSW. Since the mine is not owned by the residents of NSW, none of the profit, or producer surplus, is attributed to NSW in the cost-benefit calculation.

The benefits to NSW consist of *worker benefits*, *supplier benefits*, NSW coal royalties, NSW state and local taxes, and the NSW share of federal company taxes. As long as the sum of these benefits remains positive, EY can claim there are benefits to NSW.

¹⁴ EY (2025), p.28

¹⁵ EY (2025), p. 22

Importantly, unlike profit, none of these benefits can be negative. At worst, royalties and company taxes could be zero. Whenever the mine operates and employs staff, the worker benefits and supplier benefits remain positive.

Adding weight to the idea that EY are obscuring the likelihood that the project could be financially unviable, none of the sensitivity analysis around prices, production, capex costs, or similar is applied to the profitability projections of the project.¹⁶ The sensitivity analysis applies only to the sum of *worker benefits*, *supplier benefits*, royalties, and taxes.

Finally, to guarantee an overestimation of the benefits to NSW, EY use estimates of *worker benefits* and *supplier benefits* that are plainly ridiculous. Combined, the *worker benefits* and the *supplier benefits* represent over half the total 'net benefits' estimated by EY.

As noted in other submissions from the Australia Institute, the EY calculation of *worker benefits*, valued at \$1.16 billion and 1,311 FTE workers¹⁷, are overstated because they rely on an assumption that workers on the project would otherwise work outside of the mining industry in lower-paying jobs.¹⁸ This approach is contrary to the usual economic assumption that inputs, such as labour, are priced at their opportunity cost. This is why NSW guidelines suggest a starting assumption of zero worker benefits.

In a similar fashion, the *supplier benefits* - valued at \$ 1.78 billion¹⁹ - relies on an assumption that in the absence of the project, businesses in the mining supply chain would be unable to achieve the same sales at the same prices. Given the largely imported nature of mining equipment and fossil fuel inputs, combined with the likely expansions of other parts of the mining industry, particularly critical minerals, in the coming decades, the assumption is unconservative and contrary to usual economic practice.

In response to the Australia Institute's previous critique of the calculation of worker and supplier benefits of the project, EY published an 18-page clarification.²⁰ Despite

¹⁶ EY (2025), p. 29 -31

¹⁷ EY (2025), p. 12

¹⁸ The Australia Institute (2023) *Hunter Valley Operations Continuation Proposals*, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SUB-55622031%2120230227T124030.216%20GMT>

¹⁹ EY (2025), p. 12

²⁰ EY (2023) *Hunter Valley Operations Response to Submissions*, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=EXH-53937206%2120231107T060137.783%20GMT>

the Australia Institute's objections to the EY methodology they continue to use, without even toning down, the same approach to overstate the benefits of the project.

CONCLUSION

As with previous proposals to expand HVO North and South, the economic assessment of the new proposal still underestimates the emissions costs and overstates the economic benefits. Using a single and consistent set of carbon prices on all scope 1 and 2 emissions being applied to NSW reduces the benefits of the project significantly.

Nevertheless, ignoring the emissions costs, the continued inappropriate calculation of the worker and supplier benefits undermines the overall quality of the EY economic assessment, suggesting its content should generally be ignored.

