

25 September 2025

To: The NSW Department of Planning, Housing and Infrastructure

Re: [HVO North Open Cut Coal Continuation Project](#), Application Number SSD-11826681, and [HVO South Open Cut Coal Continuation Project](#), Application Number SSD-11826621

Attention: NSW Minister for Planning and Public Spaces

Thank you for the opportunity for the Institute for Energy Economics and Financial Analysis (IEEFA) to provide input on the proposed HVO North and South Open Cut Coal Continuation Projects. IEEFA is an independent energy finance think tank that examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy.

IEEFA has reviewed the HVO North and HVO South Open Cut Coal Continuation Projects' amended economic assessment ([Appendix M – Economic Assessment](#)) compiled for the proponents by the consulting agency EY. Our findings are summarised below and detailed in this submission.

1. Issues with the proponent's thermal coal price forecasts.
2. The proponent has not addressed the declining outlook for seaborne thermal coal exports, and therefore has not provided sufficient economic rationale for the project.
 - a. If the projects face depressed demand and lower coal prices, this risks the entire net benefits presented in the economic assessment results.
 - b. This also risks the proposed employment benefits to be created by the project.
3. Issues with the proponent's carbon cost assumptions and greenhouse gas (GHG) emissions accounting.
 - a. Using NSW Treasury carbon shadow prices, the proponent's estimated Scope 1 & 2 emissions would equate to a cost of \$2.2 billion over the life of the projects in NPV terms, more than \$2.196 billion higher than the proponent's estimated carbon costs of \$3.8 million.
 - b. The proponent does not include Scope 3 emissions in the Cost Benefit Analysis (CBA), with its estimated Scope 3 emissions accounting for 58% of NSW's targeted emissions between now and 2050.
 - c. Methane emissions from the project could be significantly underestimated, potentially understating the cost of emissions to NSW.



- d. The proponent has not planned structural emissions abatement, and will over-rely on carbon offsets to meet emissions reduction requirements.
 - e. The reliance on carbon offsets to meet its emissions reduction obligations under the Safeguard Mechanism is stated as 59% of the safeguard baseline over the life of the project. This is near double the 30% guidance limit for the use of offsets in the Safeguard Mechanism framework.
 - f. The unabated use of diesel equipment over the life of the project does not align with the DISR 2025 Resources Sector plan pathway for emissions reduction, and contributes 8.9 million tonnes of Scope 1 emissions.
4. If the projects are approved, they could disproportionately impose an increased burden on other industries in the state to make larger emissions cuts.

Kind regards,

Anne-Louise Knight, Lead Research Analyst, Australian Coal
Andrew Gorringer, Energy Finance Analyst, Australian Coal

Project overview

Production

The HVO North and South Coal Continuation projects estimates to produce 429.3Mt of ROM coal, with 316Mt of this saleable product coal over the life of the project between 2027-2045, 90% (283Mt) thermal coal and 10% (33Mt) metallurgical coal. In FY2025, HVO produced 14.1Mt of saleable coal, or 8% of NSW's total coal production. This has increased from the historic range of 5-6%. The proponent is seeking approval for a maximum ROM production rate of [26Mtpa](#) per year from 2027, reducing slightly to 22Mtpa for the final three years from 2043 to 2045. If the projects are approved, they would account for 27% of NSW's coal production capacity from 2027 to 2045, based on approved mining leases and production capacities.

Employment

In this amended proposal (2025), we note the proposed amount of coal to be mined by both projects has decreased, as have the lives of both mines compared with the original proposals (2022). However, the proponents have increased the proposed operational workforce over the period of the projects to an average direct employment of [1,118](#) FTE workers (in 2022) to an average direct employment of [1,311](#) FTE workers (in 2025). The proponent has not explained why or how they will provide the additional 193 FTE employment in the amended application.

Emissions

The following gross GHG emissions are estimated by the proponent over the life of the projects.

- Scope 1 – 15.1Mt CO₂e
- Scope 2 – 0.2Mt CO₂e
- Scope 3 – 793.8Mt CO₂e

Based on reported [2005 greenhouse gas emissions for NSW](#), the total Scope 1, 2 and 3 emissions estimated by the proponent would represent 80% of NSW's targeted emissions between 2027 and 2045. The proponent estimates the GHG emissions costs from the projects will be \$3.8 million in NPV terms. Applying NSW shadow carbon prices to these emission estimates values these GHG emissions at \$2.2 billion in NPV terms over the life of the projects – more than \$2.196 billion higher than the proponent's estimated carbon costs of \$3.8 million. The proponent states it will offset 5.595Mt of emissions using ACCUs over the life of the project at a total cost of \$541 million, an assumed cost of \$81 per ACCU, or \$1.26/t of ROM coal, for the 429.3 million tonnes of coal extracted. In addition to the mandatory Safeguard Mechanism compliance, the project proposes to purchase additional voluntary carbon credits to assist NSW meet its emissions reduction targets. It proposes to purchase an additional 1.545Mt of offsets at a cost of \$149 million, in real terms.

Adjusting the GHG estimates to account for potential problems in methane reporting, the Scope 1 gross emissions could instead be at least 27Mt CO₂e over the life of the projects.

This is 12Mt (80%) more methane than the proponent's estimate. Such a realisation would create additional burden on the volume of offsets required by the project.

Thermal coal price forecasts

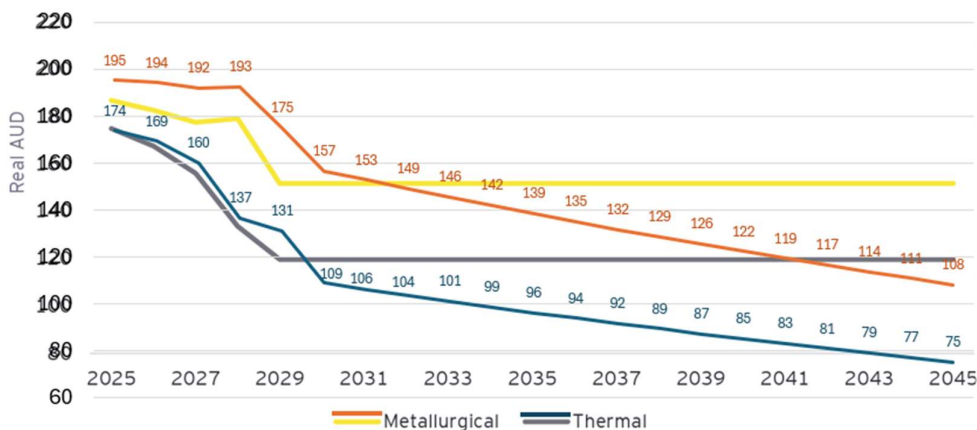
The proponent's price forecasts do not reflect their stated assumptions

The proponent's forecast price calculations potentially lead to an overestimation of at least \$2 billion in its assumed NPV. The [proponent's economic assessment](#) states that the profitability of the project depends on the prevailing coal price. "*The potential direct benefits of the Project are a function of the profitability of the proposed development which, in turn, depends on the prevailing coal price.*" However, an alternative view of future coal price inflation could deliver a \$2 billion lower NPV value in the project direct benefits.

The proponent states that the projects' economic assessment and subsequent calculation of assumed NPV of realised coal prices over the life of the projects is based on KPMG Coal Price and FX Market Forecasts, March/April 2025, adjusted to 2025 real prices using Office of the Chief Economist June 2025 inflation rates and then reported in NPV terms by applying a 7% discount rate. However, the proponent's projected price assumptions in 2025 real terms through to 2045 (Figure 7 of the Economic Assessment) do not reflect their stated assumptions.

Figure 1 below shows what the coal price should look like based on the proponent's assumptions and source data (blue & orange) compared with the price assumptions in the CBA, Figure 7 (grey & yellow).

Figure 1: Proponent's assumed coal price forecasts in real 2025 prices (\$/t)



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

The proponent has assumed coal prices beyond 2029 to 2045 are flat in real terms. However, it is possible to take an alternative view of this period, which lies outside the reference forecast range, based on the following factors:

- Coal prices will decline in real terms from 2029 onwards in line with the transition away from coal.

- The rate of inflation in Australia drops to zero or near zero after 2029.

The CBA calculates the total project revenue to be \$39.7 billion over 19 years in real undiscounted 2025 Australian dollars, or \$20.8 billion dollars in NPV terms. However, recreating this NPV value by using the assumptions stated in the Economic Assessment, the total combined project revenue from coal sales would be \$33 billion over 19 years in real undiscounted 2025 Australian dollars, or \$18.9 billion in NPV terms. Correcting the error in the economic assessment and applying the proponent's assumptions accurately **means the combined NPV of the project would be almost \$2 billion lower.**

The Economic Assessment states the proponent converted its price assumptions into real 2025 AUD terms by applying inflation rate forecasts from DISR's REQ June 2025 forecast data. However, these forecasts only extend to FY2026-27, the year the projects start. "*All nominal coal price [forecasts are converted](#) into real 2025 AUD using Office of the Chief Economist Resources and Quarterly June 2025 inflation rate forecast.*"

Insufficient thermal coal demand growth to rationalise the projects

The proponent has not addressed the declining outlook for seaborne thermal coal exports, and therefore has not provided sufficient economic rationale for the project. The HVO North and South Coal Continuation Projects propose to mine predominantly thermal coal, with estimated production of more than 140 million tonnes of saleable thermal coal from 2027 to 2045. However, the proponent fails to acknowledge the product it proposes to mine and sell will likely enter structural market decline during the projects' lifespans.

Australian [government projections](#) in March 2025 asserted that, "*The coal power project pipeline, concentrated in Asia, does not provide sufficient demand to support seaborne markets long term.*" The impact of falling Chinese imports is also unlikely to be offset by any increased demand from South-east Asia, contributing to shrinking global thermal coal trade.

There are no equivalent replacement markets for Australia's high calorific value (CV) coal as Japan, South Korea and Taiwan phase out coal-fired power. And there is no evidence to suggest any demand growth in South-east Asia won't be met by cheaper thermal coal supplies from Indonesia, South Africa, Russia or Colombia.

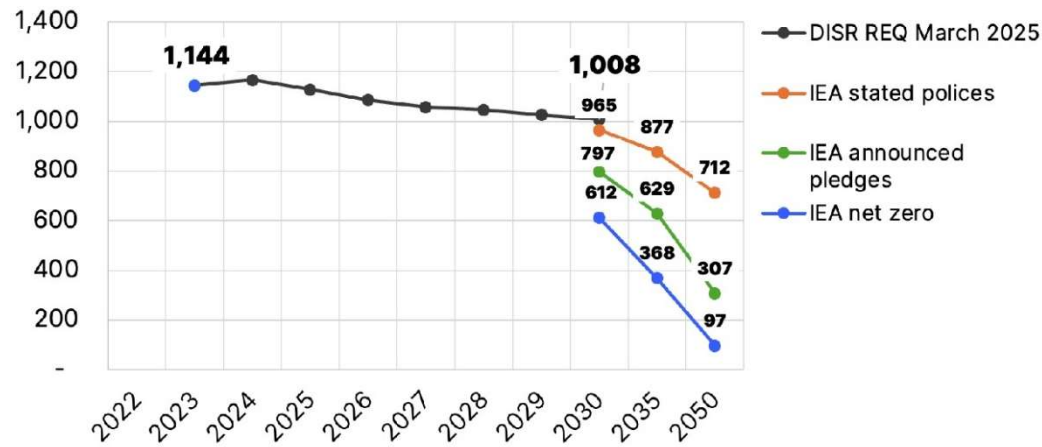
China, which has been the primary thermal coal growth market since 2022, reached a major turning point, achieving a net decrease in emissions in 2024 as its renewable energy generation and storage capacity grew and total coal consumption dropped. The [International Energy Agency \(IEA\) suggests](#) China's coal imports peaked in 2024. Additionally, the outlook for South-east Asia's pipeline of coal-fired power projects is also uncertain. As the Australian government [notes](#), "Over the next decade, coal power unit retirements are forecast to be triple builds."

Additionally, the IEA's [World Energy Outlook 2024](#) shows investment trends in coal-fired power generation highlight coal's declining role in new electricity generation. The IEA asserts



that global thermal coal trade could decrease at faster rates than DISR projections under each of the agency's scenarios: Stated Policies, Announced Pledges and Net Zero.

Figure 3: Seaborne global thermal coal trade 2025-2030, REQ vs IEA scenarios (Mt)

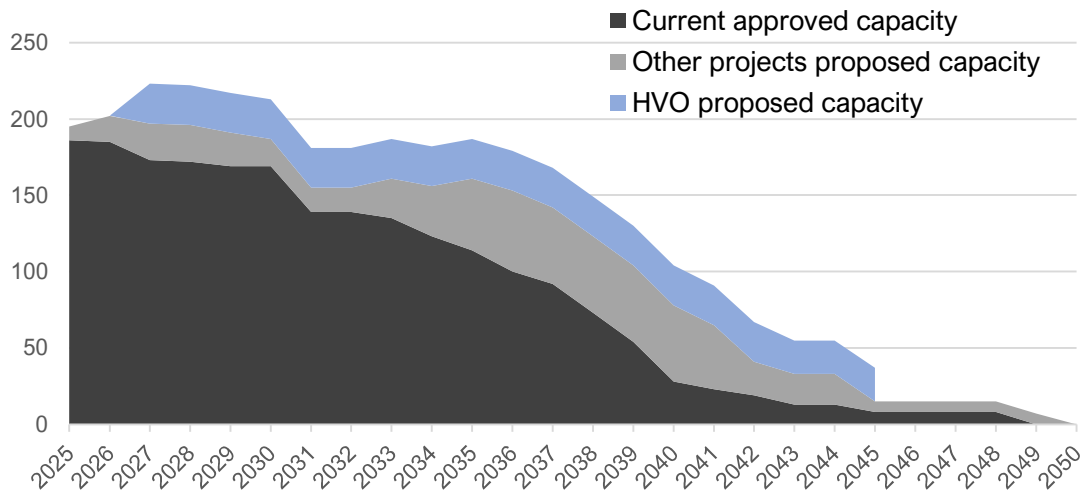


Sources: IEEFA; DISR REQ March 2025; IEA World Energy Outlook 2024

NSW does not need additional thermal coal capacity to meet demand

If the HVO North and South continuation operations are approved, they would account for approximately 27% of coal production capacity in NSW between 2027-2045.

Figure 4: Proposed thermal coal production in NSW (ROM, Mt)



Sources: EPBC or State EIS approval documents; IEEFA

GHG emissions accounting

The proponent estimates the GHG emission costs of the projects at \$3.8 million in NPV terms – \$1.7 million for HVO North and \$2.1 million for HVO South. This valuation does not include

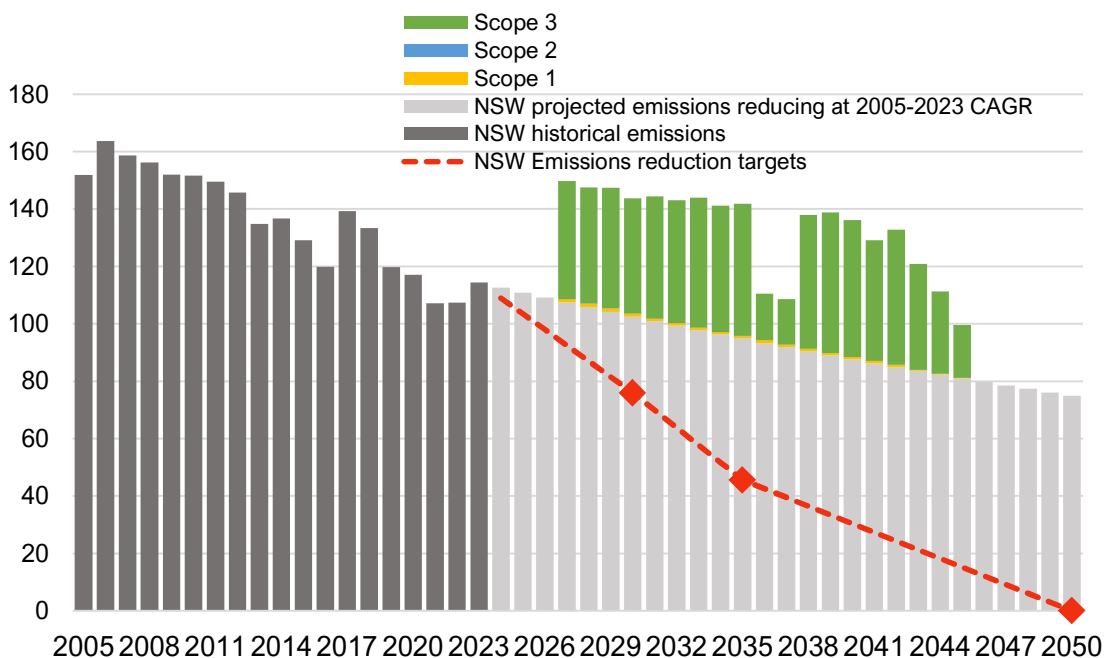
discussion of the impact the project could have on NSW's ability to meet its legislated emission reduction targets. This includes the potential for other industries to carry a heavier burden of emissions reduction action to account for the potential increase in emissions from the HVO projects, which will rely heavily on carbon offsets rather than structural abatement action.

Additionally, IEEFA has reviewed the proponent's GHG emissions estimates for the life of the projects. We found that if the Scope 3 emissions were included in the project and Scope 1 emissions were adjusted to account for potential methane underreporting, **total gross Scope 1, 2 and 3 emissions would be 821.8Mt CO₂e**, 12Mt higher than proponent estimates.

Scope 3 emissions omitted from the CBA

By far, Scope 3 emissions are the biggest contributor to GHG emissions from open-cut coalmines such as the proposed projects. These are largely the emissions from consumers burning the predominantly thermal coal from the projects in Australia or overseas. The proponent estimates the projects would produce nearly 800Mt of Scope 3 emissions. This represents about 58% of NSW's targeted emissions, assuming emissions reduce from 2005 levels in line with legislated targets (Figure 5).

Figure 5: NSW reported GHG emissions and targets vs HVO estimates (Mt CO₂e)



Sources: NSW historical emissions taken from DCCEEW, [State and territory greenhouse gas inventories: annual emissions](#); Scope 1,2 & 3 emission estimates taken from the proponents' [Appendix E – Greenhouse gas assessment](#), prepared by EMM for HVO North and South Coal Continuation projects; IEEFA

Individual GHG emission rates not reported

Although the proponent has not reported its estimated methane emissions separately to carbon dioxide, it has reported estimated “fugitive emissions” in CO₂e terms, estimating about 40% of its Scope 1 emissions will be fugitive emissions (see Table 3.7 in HVO’s [Appendix E – Greenhouse gas assessment](#), below).

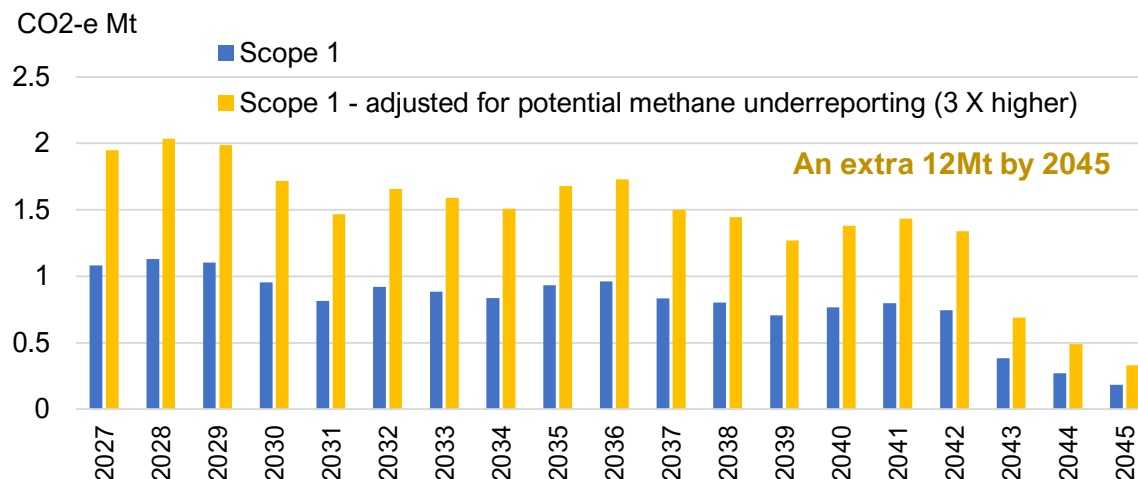
Table 3.7 Ranking of scope 1 and scope 2 sources based on project life emissions (Scenario 3)

Ranking	Source	Scope	Life of mine emissions (kt CO ₂ -e)	Contribution (%)
1	Diesel consumption	Scope 1	8,860.2	57.8%
2	Fugitive emissions from coal extraction	Scope 1	6,019.5	39.3%
3	Electricity consumption	Scope 2	214.9	1.4%
4	Blasting	Scope 1	200.7	1.3%
5	Vegetation clearing (loss of carbon sink)	Scope 1	23.8	0.2%

Source: HVO Appendix E – Greenhouse gas assessment

The NSW government’s [Technical Notes](#) on preparing economic assessments state, “GHG estimates should be reported by gas and in carbon dioxide equivalent units.” However, the economic assessment only provides Scope 1 estimates in CO₂e terms, and does not provide a breakdown of estimated GHG emissions by year or gas type. This is problematic because it also does not clarify the conversion rate applied to the methane emissions estimates to convert these emissions into CO₂e units. Additionally, methane emissions from open-cut coalmines in Australia are not measured directly but are estimated using production-based emissions factors. If methane emissions are three times higher than the proponent estimates, Scope 1 emissions would be at least 12Mt greater over the life of the projects.

Figure 6: HVO projects’ estimated Scope 1 emissions, potential methane underreporting

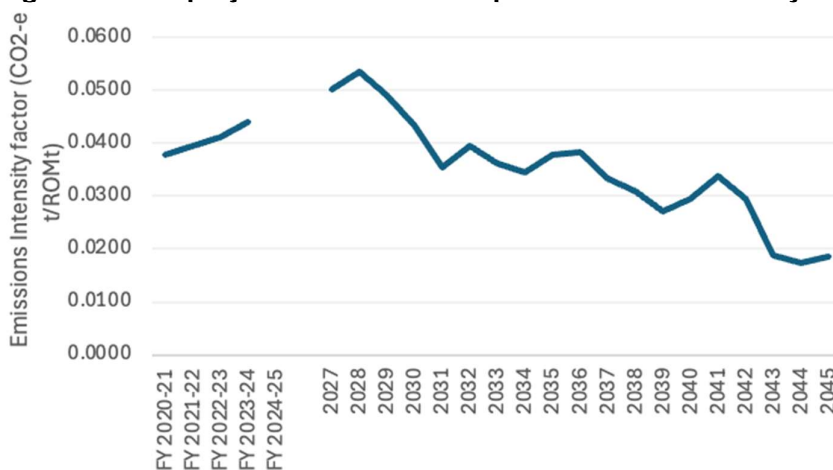


Sources: SCOPE 1 emission estimates taken from the proponent’s [Appendix E – Greenhouse gas assessment](#), prepared by EMM for HVO North and South Coal Continuation projects; IEEFA

Methane emissions could be significantly higher

The project's Scope 1 emissions intensity rate is determined based on the proponent's GHG assessment. The emissions intensity rate is compared with historical performance (Figure 7).

Figure 7: HVO projects' estimated Scope 1 emissions intensity



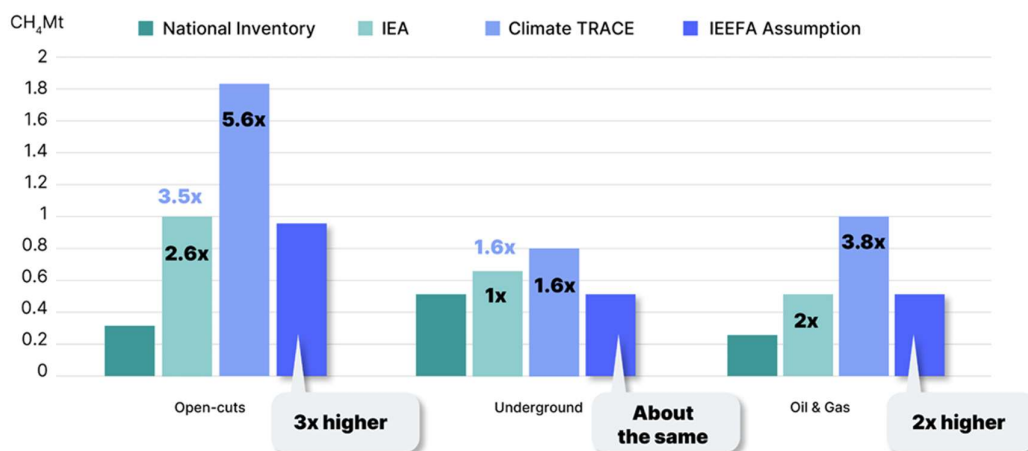
Sources: CER, HVO Annual Environmental Reviews, HVO Appendix E – Greenhouse gas assessment

The emissions intensity rate forecast appears to rise initially then fall to below historical rates for the duration of the project. The reasons for this are not clear from the documentation provided or whether it is a result of erroneous emissions assumptions. The proponent states that the average Scope 1 emissions intensity over the life of the Amended Project would be 0.0352t of CO₂e per tonne of ROM coal.

There is a growing body of evidence that reported methane estimates from open-cut coalmines in Australia could be significantly underestimated. The Australian government has [calculated](#) the uncertainty in methane emissions reporting by open-cut mines is at least 30%. Additionally, [analysis](#) by the Superpower Institute suggests methane emissions from the fossil fuel sector could be twice as high as reported, and IEA [data](#) suggests open-cut coalmine emissions could be three times higher on average than reported (Figure 8).

The uncertainty of estimated methane emissions from the project should be accounted for in the sensitivity analysis of the CBA and ultimately reflected in the uncertainty on NPV of the total carbon cost of the project. **The NPV of carbon costs from the project can vary based on the uncertainty surrounding the total GHG emissions from the project and the uncertainty of the cost of ACCUs or Safeguard Mechanism Credits (SMCs)** necessary to offset these emissions under the Safeguard Mechanism.

Figure 8: Estimated methane emissions underreporting by Australian coal, oil and gas



Sources: Department of Climate Change, Energy, the Environment and Water (DCCEEW); IEA; Climate TRACE; IEEFA.

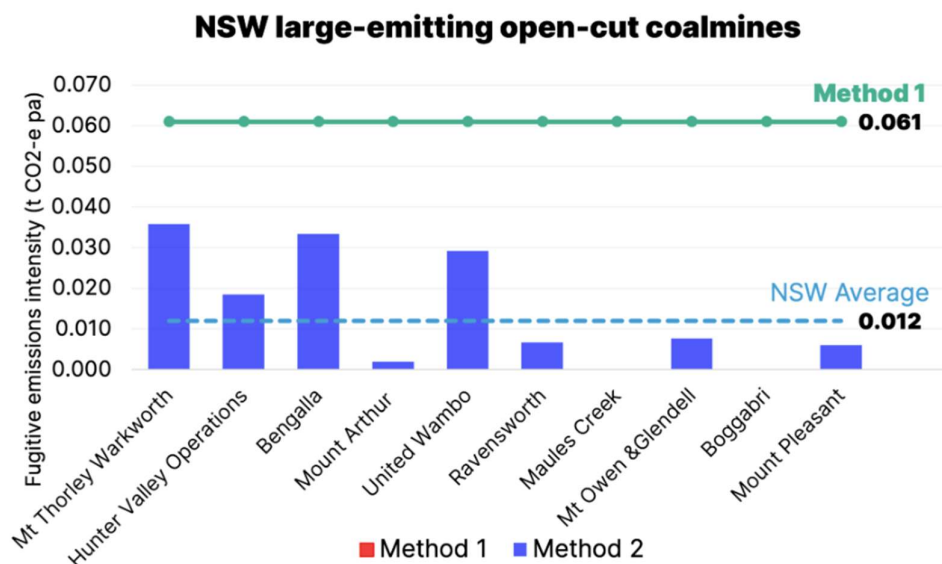
Note: The IEA does not report on underground and open-cut mine methane estimates separately; IEEFA considered a range of underreporting factors based on underground emissions varying between reported levels and Climate TRACE levels.

Additionally, the proponent should ensure the production factors used to convert methane to CO₂e are based on the most recent National Greenhouse Account Factors. The [NSW Technical Notes](#) state: “Proponents should reference the current version of the National Greenhouse Account Factors published annually by the Commonwealth Department of the Environment and Energy for updated GWP [Global Warming Potential] values, emission factors and for an extended list of reportable greenhouse gases.”

Recently, all open-cut coalmines in NSW, including HVO operations, moved from using Method 1 to Method 2 under the National Greenhouse and Energy Reporting (NGER) Scheme to estimate methane emissions from coalmining. There is potential that total Scope 1 emissions would have decreased during this period due to decreased production, mining less gassy seams or decreasing CO₂ emissions. However, when examining data from other large NSW open-cut coalmines, the reported methane emissions per unit of coal produced were 80% lower under Method 2 estimations compared with Method 1 default factors, based on the FY2023-24 [Safeguard Facility data](#). This means the decrease in reported emissions would not be driven by a decrease in production.

An Australian Climate Change Authority [review](#) of the Methods in the NGER Scheme recommended, “as a matter of urgency, review Method 2 with respect to sampling requirements and standards”. As far back as 2019, [research](#) by the University of Wollongong found the Method 2 approach to determining “low-gas zones” was flawed. This is due to the standards containing an artificially high gas detection threshold and an associated low amount of gas assumed for the low-gas zone effectively underreporting gas considerably. This is most pronounced when high levels of methane are found in the gas (due to gas density differences). The study recommended lowering the threshold gas factor used in Method 2 by an order of magnitude.

Figure 9: Method 2 actual reported methane emissions intensity vs Method 1 standards



Sources: Australian Clean Energy Regulator, Safeguard Mechanism Data 2023-24; IEEFA

HVO uses NGER Method 2 to estimate emissions, the same method as all other open-cut mines in NSW. It reports very low gas emissions by classifying areas such as HVO North's Domain 2 as a "low gas zone". But these readings may be unreliable as gas sampling in that area was taken near a geological dyke, which can distort readings. IEEFA raised some of the issues associated with Method 2, including for HVO, in recent [analysis](#).

Carbon cost estimates

NSW Treasury carbon shadow pricing has not been used

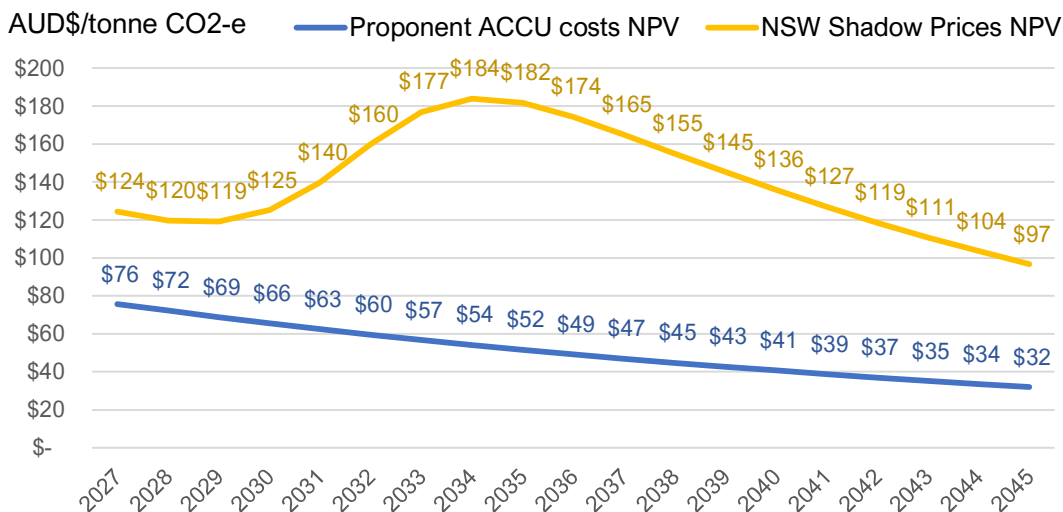
The proponent models the cost of mitigating carbon emissions. It proposes firstly to account for the cost of meeting Safeguard Mechanism compliance at \$541 million over the life of the projects. The required carbon offsets, in real terms, are costed at \$81/t, escalating 2% a year in real terms from 2027. It then proposes to purchase 1.545Mt of additional offsets at \$149 million, in real terms. The total cost of emissions in the CBA is \$690 million over the life of the projects.

The NSW Government Investment Framework requirements on carbon emissions set out how government agencies must value carbon emission impacts in a CBA. The framework sets out shadow carbon prices to be applied to all carbon emissions. These are \$130/t (rising to \$350/t in 2024 dollar terms by 2040). Using NSW Treasury carbon shadow prices, the proponent's estimated Scope 1 and 2 emissions would equate to a cost of \$2.2 billion over the life of the projects in NPV terms, \$1.5 billion greater than stated by the proponent.

If the proponent's estimated Scope 3 emissions are included, the projects' costs increase to \$103.4 billion in NPV terms using NSW shadow carbon prices.

If the proponent's Scope 1 emission estimates were adjusted for potential methane underreporting, this would increase the projects' Scope 1 emissions cost to \$3.9 billion over the life of the projects in NPV terms.

Figure 10: HVO's proposed carbon costs vs NSW govt shadow prices



Sources: NSW Treasury, TPG24-34 Carbon emissions in the Investment Framework, December 2024; EY, Economic Impact of the Hunter Valley Operations Continuation Project, 4 August 2025. Notes: SP = shadow price. SA = sensitivity analysis. NPV = net present value, applying a 7% discount rate. NSW Treasury Shadow Price values are in 2024 dollar terms.

The proponent notes that the costing of carbon credits used in the CBA is “*inherently conservative and was adopted to examine the Project’s cost and benefits through pessimistic assumptions*”. However, this cost falls below the NSW shadow carbon price when both are adjusted into NPV terms using a 7% discount rate.

Carbon cost sensitivity analysis excluded from CBA results

NSW Treasury also provides low and high case carbon values to be included in CBA sensitivity analyses. These values have not been used in the proponent’s economic analysis and have not been factored into the sensitivity analysis in the CBA.

The NSW government [Technical Notes](#) on preparing economic assessments state that sensitivity analysis on anticipated project GHG emissions output (Scope 1 and 2) at carbon prices *below and above* the central estimate price should be undertaken. This has not been done. Instead, the proponent has reported various carbon price and allocation sensitivities in a separate table but has not shown how these variations would affect the total NPV of the project because it has excluded this from the overall CBA sensitivity analysis.

Excessive reliance on carbon offsets

The proponent plans to rely entirely on carbon offsets to meet its emissions reduction obligations under the Safeguard Mechanism for the projects. It plans to surrender 5.6Mt of offsets to bring the projects below the 9.5Mt allowable emission cap. At 59% of the cap, this

volume of offsets is almost double the Safeguard Mechanism's 30% maximum [excess emissions limit](#) in any year. Both the Australian government and the World Business Council on Sustainable Development advocate that companies should prioritise reducing or avoiding emissions before turning to offsets.

The Economic Assessment for the projects estimates the costs of these offsets will equate to only \$1.26/t of ROM coal mined. The proponent also provides no assurances that offsets would be sourced from NSW, stating that this would be a consideration in their procurement decisions if they were available at commercially favourable terms.

The use of carbon offsets to meet an emissions obligation that consists of both CO₂ (~58%) and methane emissions (~42%) should also consider the type of gas being offset. In addition to the potential underreporting of methane emissions covered in the previous section, there is further risk the volume of offsets required could change if the global warming potential (GWP) of methane changes. In Australian GHG accounting, one tonne of methane is converted to 28t CO₂e using a 100-year time horizon. Other GWP values exist that would equate 1 tonne of methane to 86t CO₂e over a 20-year horizon. If these higher rates were to be adopted in future, this would require significantly more offsets to be surrendered for projects such as HVO North and South, which, as open-cut coalmines, carry significant methane emission risks. These risks demonstrate that the CBA could significantly underestimate carbon costs.

Diesel combustion emissions at HVO

Diesel emissions are the largest source of direct emissions from the projects (accounting for 58% of Scope 1 emissions, or 8.9Mt CO₂e). As such, the mines are unlikely to offer substantial decarbonisation unless they can reduce emissions from diesel combustion.

Several decarbonisation pathways are emerging, including biofuels, renewable diesel, electrification, hybrids, trolley assist and hydrogen. Glencore has trialled biofuels in mining equipment, but does not use them in operations due to cost and availability. HVO proposes only to monitor developments regarding these projects.

A number of relevant planning documents provide planning guidance on the unmitigated use of fossil diesel. Firstly, the NSW EPA Proposed Greenhouse Gas Mitigation Guide for NSW Coal Mines expects the introduction of low carbon alternatives to fossil diesel from July 2030, starting at a 5% blend. Secondly, the DISR 2025 Resources Sector plan contains a pathway for reducing diesel combustion emissions:

- By 2030 – Demonstration and commercialisation of electrified haulage and equipment.
- By 2035 – Deployment of heavy electric vehicles and equipment, with greater penetration of low-carbon liquid fuels and renewable energy in remote regions, and adoption of low-carbon fuels (liquid and gaseous) where electrification is not feasible.

The diesel fuel rebate of 51c a litre to be received by the HVO projects is worth \$1.7 billion in today's dollars, based on the diesel used for the life of the projects. This compromises the financial case for switching to cleaner technology alternatives. The rebate, in effect, pays for all the mining equipment and fleet replacements over the life of the mine.

Approval could shift burden of emissions cuts to other NSW industries

IEEFA's [research](#) has found that several coalmine emissions baselines under the Safeguard Mechanism have been readjusted upwards. So, in aggregate, the volume of permitted emissions for coalmines under the Safeguard Mechanism increased by 261,475t CO₂e from FY2016-17 to FY2022-23. In comparison, the aggregate change in baselines of all other Safeguard facilities (excluding coalmines and oil and gas facilities) was reduced by almost 7Mt CO₂e in the same period.

About IEEFA

IEEFA is an independent energy finance think tank that examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy.

About the Authors

Anne-Louise Knight

Anne-Louise Knight is IEEFA's Lead Research Analyst for Australian Coal. Her work examines the financial viability of coal mining projects in Australia and the demand outlooks in Australia's thermal and coking coal export markets. Anne-Louise has over seven years of experience working in Australian government agencies, most recently as a senior economist with the Australian Trade and Investment Commission. She holds a Master's in Economics, a Master's in Environmental Management and Development from the Australian National University, for which she was awarded the Tiri Tiri Prize, and a Bachelor's of International Studies from the University of New South Wales.

Andrew Gorringe

Andrew Gorringe is an Energy Finance Analyst, Australian Coal, at IEEFA. Andrew researches and produces expert analysis on topics covering the Australian and global coal industry and energy finance investment. Andrew holds qualifications in engineering, finance and science including a Master's degree in Applied Finance from Macquarie University. Andrew has over 25 years' experience in modelling capital projects and investments, and more than 10 years' experience as an analyst in the coal sector at several major Australian coal producers.