

25 September 2025

Submission: HVO North and South Continuation Projects - amended projects

Thank you for the opportunity to submit to the amendments proposed to the Hunter Valley Operations Continuation Projects.

Lock the Gate Alliance objects to these projects on the grounds that they will have unacceptable impacts on the environment, society and economy of New South Wales. The over 800 million tonnes of greenhouse gas emissions to be created by these projects will further fuel global warming, the impacts of which are reaching tipping points in New South Wales. The economic and strategic logic underpinning this project relies on coal demand assumptions that would subject the people and environments of NSW to over two degrees of global average warming. Even just within NSW, the scale of greenhouse gas emissions proposed to be produced by this project are wholly contrary to the state's statutory commitment to preventing catastrophic levels of global warming, and to act on climate change in a manner that "considers the economic risks of delaying action to address climate change" and is consistent with the right to a healthy environment. Indeed, if the NSW Government approves this project, it will have committed a wrongful act attributable to Australia according to the argument expressed in the *Advisory Opinion of the International Court of Justice on Obligations of States in respect of Climate Change*.

In particular, in relation to climate change, we contend that:

1. The failure of the documents to address the impacts of downstream greenhouse gas emissions on the environment and the economic and social impacts in the locality means that the reports do not comply with the requirements of the EP&A Act 1979 as interpreted by the NSW Court of Appeal in the Mt Pleasant coal mine expansion case. Therefore, these documents should be withdrawn and a revised assessment re-exhibited that does comply with those requirements.
2. The assessment comprehensively fails to address the principles set out in the NSW *Climate Change (Net Zero Future) Act 2023*, despite the written directive from the Minister for Climate Change that such principles must be addressed in decision making under the EP&A Act 1979.
3. The project is clearly starkly inconsistent with the NSW Large Emitters Guide, which requires that direct emissions must be on the same trajectory as the NSW emissions reduction trajectory. However, direct emissions in 2030 for this project will be far greater than what they were reported as for the project in FY23/24. This is an increase of emissions, not the reduction to 50% required. The scale of direct emissions from this project will make it one of the largest emitters in NSW.
4. The project appears to represent an 'internationally wrongful act' which will be attributable to the state of NSW, based on the recent International Court of Justice Advisory - *Advisory*

Opinion of the International Court of Justice on Obligations of States in respect of Climate Change (23 July 2025) - which must be addressed by the decisionmaker.

5. The economic assessment fails to consider the cost of Scope 3 emissions and relies on an extremely outdated Marginal Abatement Cost that provides a vastly inadequate estimate of the cost of emissions from the project to NSW.

Furthermore, granting this consent would enable considerable loss of strategic agricultural land and direct impacts to the alluvial aquifer of the Hunter River. The West Wing pit mining that was granted approval in 2013 has not proceeded so the impacts that Modification would have on strategic agricultural land will be avoided if this consent is not granted.

“Approved mining” is expected to have very high cumulative impact on water resources, including considerable direct damage to the Hunter alluvium and its paleochannel, and destruction of the unique stygofaunal communities that live in it and the strategic agricultural land that overlies it. The approval includes the end date of mining and therefore these impacts are impacts that accrue to this new development application and must be assessed and considered as such.

Climate Change

The treatment of climate change in the assessment material for this mine expansion is misleading, mischievous and contemptuous of the costs that will be inflicted on the Hunter and the state more broadly should this project proceed.

The recently released National Climate Risk Assessment found that in the last twenty years, NSW has had a greater number of disasters than any other state or territory. Modelled total annual economic cost of climate hazards in NSW will be over \$50 billion dollars by 2050 according to the National Climate Risk Assessment, adapting figures from the Colvin 2024 Independent Review of Commonwealth Disaster Funding. NSW was also estimated to have lost a billion dollars in reduced consumption and income due to the tourism shutdown from the 2019-2020 Black Summer bushfires.

Without this project, NSW will get the substantial benefit of a greenhouse gas emissions reduction of over 600,000 tonnes from the end of 2026. If the project is approved, by contrast, the HVO complex will increase its greenhouse gas emissions by roughly 50% by 2030 and emissions will remain higher from the mine than its current reported levels until the operation begins to wind down in the mid 2040s.¹ Moreover, HVO predicts that its methane emissions will more than double by 2029, and then remain at elevated levels (compared to FY24) until 2042. The NSW Government has recognised that “reducing methane emissions is important for slowing the rate of atmospheric warming,” but this project has the opposite intention and is categorically and undeniably contrary to NSW public policy, public interest and greenhouse gas trajectory.

The proponent was specifically asked in July 2024 to provide further information demonstrating how the HVO Continuation Project fits within Glencore's *2024-26 Climate Action Transition Plan*, particularly regarding the action plan's consideration of Scope 3 emissions. This has not been

¹ HVO reported 637kt CO₂-e emissions to the Clean Energy Regulator in FY24 and its emissions in the first four years of operations of the Continuation Project would be more than 300kt higher than this.

provided with this assessment. We note that the plan in question displays the outcomes of internal company modelling demonstrating that seaborne trade in thermal coal declines to virtually zero by 2040 in a scenario consistent with avoiding catastrophic levels of global warming and achieving net zero by 2050. The only conclusion we can come to on reading this amended application is that the proponent assumes that this decline is not going to occur, and is reckless to the consequences of that to the people, environment and economy of New South Wales. The Department of Planning, on the other hand, has statutory responsibility to act in the public interest. There can be no question that it is against the public interest for this mine expansion to proceed. The Department will be held to account by the people of New South Wales for the harms of climate change that accrue to all of us as a result of the ongoing approval of coal export expansion projects.

The Department likewise asked the proponent to address each of the principles in the *Net Zero Future Act*. Words to this effect have been provided, but they do not actually respond to the Act's principles. In response to the "critical need to address climate change, which is a serious threat to the social, economic and environmental wellbeing of New South Wales" the companies list what they claim to be "robust climate change strategies." The strategies listed for Yancoal do not mention climate change, nor how the company will address it, but instead says the company is:

monitoring relevant policy, market, and technological developments and financial signals to inform how Yancoal's investment and development priorities should adapt to transitions in the global energy mix, and to support innovation and investment in carbon capture, utilisation and storage (CCUS) through various industry and policy initiatives.

Glencore claims that "By managing the depletion of its coal portfolio and responsibly realising the remaining value in these assets it can make a meaningful contribution to global climate change goals" but fails to respond to the request for information about its CTAP or indicate what global temperature trajectory aligns with the company's strategy of "responsibly realising the remaining value." We note that Glencore's activities in NSW are contrary to a purported strategy of "managed decline" given that it is seeking approval to expand operations at HVO, recently obtained approval to expand at Ulan and has been conducting exploration activities to expand its coal resource portfolio at Ulan.

The fourth principle in the NZF Act expressly requires that action on climate change be taken in a manner that "considers the economic risks of delaying action to address climate change." Nowhere does the proponent address this, but the Department must do so, drawing on the National Climate Risk Assessment, the Intergenerational Report and the estimated socio-economic impact on the Hunter and New South Wales of a global average warming scenario consistent with the proponent's expectations of thermal coal demand.

The fifth principle in the NZF Act is that "Action to address climate change should be consistent with the right to a clean, healthy and sustainable environment." The proponent does not engage with this principle or this right. The right to a healthy environment has already been construed as an aspect of intergenerational equity by the NSW Land and Environment Court in its finding in *Telstra Corporation Ltd v Hornsby Shire Council* [2006] NSWLEC 133, at [117]: "[Intergenerational equity] involves people within the present generation having equal rights to benefit from the exploitation of resources and

from the enjoyment of a clean and healthy environment.” The recent *Advisory Opinion of the International Court of Justice on Obligations of States in respect of Climate Change* (23 July 2025) is relevant to NSW’s assessment of the HVO Continuation project given the right to a healthy environment is recognised in law in NSW and intergenerational equity is a mandatory consideration as part of the public interest. The duties of states described in the Advisory Opinion pertain to the Commonwealth of Australia and under its bilateral assessment agreement the NSW government is obliged to provide the Commonwealth with an assessment that is fit for purpose under Commonwealth law. Clearly, such an assessment must not conflict with or breach Australia’s obligations under international law. According to the Advisory Opinion [457 B (a)], Australia’s obligations include:

duty to prevent significant harm to the environment by acting with due diligence and to use all means at their disposal to prevent activities carried out within their jurisdiction or control from causing significant harm to the climate system and other parts of the environment, in accordance with their common but differentiated responsibilities and respective capabilities.

At [427] the ICJ Advisory Opinion cautioned that,

Failure of a State to take appropriate action to protect the climate system from GHG emissions — including through fossil fuel production, fossil fuel consumption, the granting of fossil fuel exploration licences or the provision of fossil fuel subsidies — may constitute an internationally wrongful act which is attributable to that State.

The 800 million tonnes of direct and downstream greenhouse gas emissions from this project will at that time make a significant contribution to fuelling catastrophic levels of global warming, given that avoiding such warming would entail the ending of the seaborne trade of thermal coal during that period.² In NSW’s evaluation of the climate change harm of this development application, the Department must consider whether its actions would constitute a wrongful act attributable to Australia in the terms of the ICJ’s opinion.

The proponent’s claim that “emissions for the amended Project (in accordance with the adopted additional NSW decline rate) are projected to reduce at a greater rate (5.1% per year on average) than those for the state (4.4% per year on average)” is false. In fact, emissions are expected to increase in the first two years, and in 2030 will still be higher than emissions from the current operation.

Non-compliance with Large-emitters guide

The environmental assessment of this amended application is not compliant with the EPA’s *Large Emitters Guide*. The proponent has not provided a greenhouse gas abatement plan and indicates it has no intention of reducing emissions at the HVO mine site in line with the NSW emissions reduction trajectory, as required by the *Large Emitters Guide*. It will not make a “*meaningful*

² See for example the IEA’s Net Zero Roadmap and the World Energy Outlook’s Net Zero Scenario. As cited above, Glencore itself has conducted internal modelling of the latter and found a likely decline of seaborne thermal coal to zero by 2040 in a scenario consistent with preventing catastrophic levels of global warming.

contribution to the emissions reduction objectives of the State.” Indeed, it will add to the difficulty of achieving the 2030 and 2035 targets.

Emissions from the HVO complex in the next five years, should this project be granted consent, contribute over 4 million tonnes of additional pollution. This is wholly inconsistent with NSW achieving its greenhouse gas emissions reduction targets. The proponent has mistakenly presented its intention to purchase offsets in lieu of a greenhouse gas abatement plan. This is unacceptable, not consistent with the Large Emitters Guide and not in the public interest.

According to the 2024 NSW Emissions Projections data, there is a gap between the legislated targets and emissions expected under current policy settings. The estimated direct emissions in NSW from the HVO complex in 2035 if the continuation project goes ahead would be 8% of the expected 11.62 million tonne emissions gap currently forecast for that year. Emissions from the mine complex in 2030 are 14.4% of the emissions gap currently forecast for that year. There is a material advantage to New South Wales in declining to grant consent to this project.

The project relies entirely on the purchase of offsets to achieve what it erroneously describes as emissions “reductions.” Reliance on offsets rather than onsite abatement leads to estimation by the proponent that it intends to buy as much as 7Mt of carbon offsets over the life of the Project. There is no discussion about the process of acquiring these offsets, nor does the assessment engage in a risk assessment regarding the increasing instability of the land sector’s carbon sink. The EPA’s position is that offsets should only be used as a “last resort” and prefers offsets to be sourced from within NSW in order for them to contribute to NSW’s emissions reduction targets. HVO says only that it will “consider purchasing NSW-based offsets where they are available and represent a cost-effective option.”

The Large Emitters Guide requires proponents who intend to use offsets to provide an offsets strategy. The proponent calculates the large number of offset credits it will require each year to meet its obligations, but provides no plan or supporting analysis. Coal and gas mining facilities surrendered 4.3 million tonnes worth of ACCUs in the 2023/24 safeguard year. The volume of ACCUs proposed to be surrendered in the first year of operation of this project is more than 10% of that volume. It is 6% of the *total* volume of ACCUs surrendered by Safeguard facilities in that year. The proponent provides no discussion about the availability of ACCUs for purchase, nor does it consider the statutory review of the Safeguard mechanism which will be undertaken next year “informed by Climate Change Authority advice about the extent to which on-site abatement is being driven by the reforms.” (Australian Government, Net Zero Plan September 2025)

Abatement measures

The only abatement actually committed by the proponent that is additional to efficiency measures it would have undertaken anyway is the avoidance of the gas-rich mining domains at HVO North. This avoids emissions that were expected late in the project life but does nothing to reduce emissions in the immediate term and contribute to New South Wales’ emissions reduction targets in 2030 and 2035. The new assessment indicates that HVO will conduct a trial of pre-mine drainage of gas, with

the scope of this trial to be provided to stakeholders “within two years of commencement of consent.”

The gassiest coal domains are proposed to be mined in the first four years of mining and contribute the bulk of the greenhouse gas emissions from the project in that period. The purpose of the proposed trial would be defeated by this delay. To limit warming to 1.5 degrees, it's estimated methane emissions would fall globally by around 30% by 2030 and to limit to 2 degrees warming, a 19% fall in methane emissions would be needed in that time. How much methane the world emits in the next few years is particularly important in determining whether or when global average temperatures reach 1.5° C above the long-term average. The use of offsets that consist of long-lead carbon dioxide removal to enable immediate release of methane creates considerable risk of temperature goals being breached. The risk that this poses, that tipping points will be breached, with flow on implications for the ability of the land sector to retain stored carbon must be analysed by the proponent and the Department in consideration of this proposal to rely entirely on offsets.

Groundwater

Mining for the Continuation Project will worsen by half a metre groundwater drawdown already affecting the Hunter River alluvium and worsen the drawdown at mapped river red gum stands that are groundwater dependent. It will induce 90ML a year of leakage from the Hunter River, and permanent leakage of 50ML a year will continue after mining ceases. Cumulative drawdown of Wollombi Brook alluvium will be up to 2 metres and this impact will extend long after mining ceases.

The assessment falsely claims a “positive” impact for the Hunter River compared to “approved” mining, *but approved mining will not take place if this application is not granted*. The base case against which the water assessment is conducted must include a case in which the Continuation Project does not proceed, in which case, considerable “approved” mining also does not proceed in line with the approved cessation of mining at the end of 2026. To assume all the impacts of what is approved proceed in the absence of this Continuation project is to selectively consider what is “approved.” The approach taken by the proponent misrepresents the impact of the project. A scenario must be evaluated that considers the impacts of mining under the HVO North consent that is not yet undertaken and not expected to occur prior to December 2026 to be impacts of this project. The same is true for extensive mining in the HVO South site, where mining is approved only to continue for another five years, and then only if the operation of the HVO North processing plant is extended. The company needs to inform the Department and the public which part of the previously approved South Lemington Pit 1, South Lemington Pit 2, or the Riverview Southeast Extension will not proceed if this Continuation Project is not approved and therefore, should be assessed as impacts accruing to this project.

Crucially, the highly invasive “Carrington West Wing” extension, approved in 2013 (as Modification 3) to mine into 137 hectares of productive agricultural land and high quality alluvial soils and the alluvium of the Hunter River, has never actually been commenced. This land was confirmed during the assessment process for Modification 3 as being Strategic Agricultural Land. We note there is only 17Mt of ROM coal identified in this area.

The presence of the paleochannel lying beyond the more recent alluvial deposits was described at the time by Frans Kalf as “unique in the Hunter Valley” - and yet consent was granted to cut it open. This damage can only now proceed if the Continuation Project is approved and so it must be considered within the scope of this assessment. We note that the conglomeration of mines that make up the HVO site have already done extensive damage to this paleochannel and the productive alluvial soils of the Hunter Valley. This must stop.

During the assessment for Modification 3, Kalf observed:

Prior to mining, groundwater flowed down gradient (downstream) through the recent alluvium but did not follow a flow path through the older paleochannel sediments. Brackish to moderately saline groundwater (2000 to 12000 EC), within the large body of these paleochannel sediments, drained slowly toward the more recent alluvium possibly joining the river as a brackish contribution to base flow in the Hunter River. Since 2009, according to the Mackie report, this flow has been reversed and groundwater from the recent alluvium flowed toward the paleochannel zone due the drawdown created by the Carrington pit.

This mining complex is already having unacceptable impact on the Hunter River and its alluvium, and further impacts must be avoided. The proposed “low permeability barrier wall” is not impermeable and over time, water will move beyond it. Indeed, Figure 10.4 of the main body of the Water Assessment shows water flowing through the barrier wall to the Carrington void. Figure 4.8 of the Appended Groundwater Assessment likewise shows groundwater flow post mining going through the existing low permeability wall, across the Hunter River channel and on to the southern void. The assessment uses imprecise qualitative language to mask significant low-likely high-consequence risks associated with the long term environmental change, claiming, “There is therefore a low potential for a shallow water table to form within in-pit spoils and migrate to the Hunter River alluvial aquifer” despite the figure actually showing precisely such migration occurring.

Among the limitations of the groundwater assessment is that “Predictive simulations relied on a single base case simulation from AGE’s (2022) predictive modelling – the likelihood and range of possible drawdown and fluxes were not quantified with a formal predictive uncertainty analysis.” Given the importance of the Hunter River and its alluvium and the extensive damage already inflicted, this analysis must be undertaken and it must assume that the West Wing pit does not proceed except if enabled by the Continuation Project.

HVO has no water access licences in the Jerrys Water Source. Predicted peak indirect groundwater (alluvial) take from the Jerrys water source is 4 ML/yr during mining. This take escalates significantly post-closure to 26ML per year, introducing significant environmental risk. The assessment expresses confidence that the company will be able to obtain licences to account for this take. The permanent loss of 26ML per year represents 2% of the water entitlements in the Jerrys Water Source. This is additional to the substantial unlicensed surface water take from the Jerrys source which is described below.

Surface water

The HVO mining complex straddles the Hunter River and intends to mine directly into strategic agricultural land an alluvial “paleochannel” of the Hunter River and the alluvium itself on the river’s northern bank. The mine gained approval to do this “West Wing extension” in 2013, but has not proceeded with it, so this project will determine whether this productive agricultural land, part of the alluvial aquifer of the Hunter River, is mined or not.

HVO holds 62% of the high security licences in one of the most vulnerable reaches of the Hunter River, between Bayswater power station and the Glennies Creek confluence (Zone 1B) and owns 7.7% of all water entitlements in the Goulburn River junction to Glennies Creek junction management zone. The modelling indicates that in extremely dry years, demand from the Hunter Regulated River zone 1B will exceed HVO’s high security entitlement in that zone. The assessment claims that in this event, the general security entitlement would be utilised, but general security licences are those which have their shares reduced in dry conditions.

The assessment claims a harvestable right of 934 ML based on the mine’s extensive landholding, but indicates it will source 2-3 times this volume annually from run-off to run the mining operation. The assessment states that there are five existing dams within the water management system of the HVO complex that are on non-minor streams according to the Regulation hydroline dataset. The assessment claims that “All other structures are exempt from requiring WALs as they are either not on mapped streams or are on minor streams and meet the definition of excluded works in the WM Regulation” but this is not established and Lock the Gate disputes the company’s chosen interpretation of the Regulation.

A minor stream does not need to be mapped, so a dam on an unmapped stream that does not meet the definition of excluded works in the Regulation must form part of the harvestable right calculation. Furthermore, the “minor streams” qualification applies to the calculation of the harvestable right. The March 2006 Harvestable Right Order states:

“A landholder has the right to capture 10% of the average regional rain water run-off on the land by means of a dam or dams having not more than the total capacity calculated in accordance with Schedule 1, which are located on ‘minor streams.’ This water may be used for any purpose, except as provided in paragraph 9.”

Schedule 2 Class 3 of the 2006 Harvestable Rights Order, and Schedule 1 of the *Water Management Regulation*, create exemption from the Harvestable Right calculation for dams that are “**solely** for the capture, containment and recirculation of drainage and/or effluent, consistent with best management practice or required by a government agency / public authority to prevent the contamination of a water source.” We note that there is a more recent Harvestable Right Order from 2023, which retains the excluded works listed in clauses 1 - 4 of Schedule 1 of the Water Management Regulation. The effect of this provision is to exclude these works from the calculation of the harvestable right, but it does not exempt HVO from obtaining Water Access Licences for the subsequent use of that water. In each of the four excluded works, the *use* to which water is put is part of the definition. Water captured under a Harvestable Right may be used “for any purpose” but

this is not the case for water captured in excluded works. While the text of this proviso varies, the exemption for preventing contamination applies only to dams that are “solely” for that purpose. The use of run-off water captured in dams on the HVO site for the purpose of operating the mine makes it water taken under section 60I of the *Water Management Act 2000* and as such it requires a licence in the relevant water source.

A review of the scale of water removal being undertaken makes clear why this should be the case. In 2024, 67.6% of water used by Hunter Valley Operations mine, or 6.3GL, was captured as unlicensed runoff and used in the operation of the mine. In the wet year 2022, Hunter Valley Operations mine reported in its mine water balance 17.8GL of water input captured from rainfall and runoff, comprising 87.2% of water inputs for that year. However, the Annual Review reported only 373ML of passive take from surface water resources against the company’s water entitlements. The water captured and used in 2024 is the equivalent of 43% of all surface water access licence entitlements in the Jerrys Water Source. Some of the dams in question are on the HVO South site and therefore may be in the Lower Wollombi Brook water source. In any case, the proponent must be required to itemise each dam that collects run-off it is using to supply water to the mine, which water source they take water from, whether or not they are clean or dirty water dams and the purpose for which the water is used, if any.

HVO is seeking an amendment of the hydroline “to reflect the approved WMS, including approved stream diversions, and to have any residual licensing liability for captured rainfall runoff based on this amended drainage configuration.” This amounts to an admission that the mine has been unlawfully removing water from the Jerrys Water Source for many years. Even with the requested update, the mine will still be unlawfully taking water if the dams retain the dual purpose not only of preventing pollution but of also supplying water to the mining operation.

The degree of captured run-off contributes to the increase in dry days predicted for Parnells Creek, Pikes Creek, Farrells Creek and Unnamed Tributary 1 (which would experience 39 more dry days). The proponent has not undertaken an assessment of the socio-economic consequences of the climate change effects of this project on the locality, but we note that susceptibility to extended dry periods is a key climate change risk for the Hunter catchment.

Monitoring has identified that groundwater in the alluvium and other affected areas is exceeding water quality triggers in the HVO area. A large tailings storage dam adjacent to the river (North Void tailings storage facility) was found six years ago to be seeping into groundwater. In the assessment of the expanded mine project, it was found that this facility would be inundated again in an extreme flood event. We are also concerned about the elevation of the Carrington void and the risk it presents for migration of poor quality water.

Aquatic ecology

The ecological condition of the Hunter and local streams is poor to moderate and dominated by pollution-tolerant taxa, but the Hunter River and Wollombi Brook alluvial aquifers nevertheless have high ecological value.

Stygofauna samples have been sourced from bores in the Hunter River alluvium and the paleochannel adjacent to HVO North. According to the assessment 80% of stygofauna recorded are endemic to the Hunter Valley and four species are endemic to single aquifers. The assessment considers that “The risk to the stygofauna community associated with the amended Project is low because there will be no additional excavation in the alluvium beyond what has already been approved” but concedes that “The cumulative impact to the stygofauna community from already-approved mining in the paleochannel is high.” Stygofauna in the paleochannel will be significantly impacted by mining. The paleochannel between CGW106 and CGW47a had large numbers of *Onychobathynella bifurcata* making it “one of the most sensitive parts of the aquifer sampled during the current survey.” The West Wing pit development will be highly destructive to high ecological value stygofauna with unknown flow-on consequences. This mining has not occurred and will not occur without this consent being granted. Therefore it would be an impact of the granting of consent to this project. Furthermore, the assessment concedes that additional mining under the Continuation Project may worsen this effect, “there may also be an impact to the stygofauna community of the surrounding aquifer due to local drawdown during operations near Carrington Billabong.” Given how old the West Wing assessment is now, a dedicated aquatic ecology study of the Hunter alluvium, its paleochannel and the Carrington Billabong are needed.

The same goes for impacts on high potential groundwater dependent ecosystems in Namoi-Upper Hunter Red Gum Forest and Central Hunter Swamp Oak Riparian Forest.

Economics

The Economic Assessment is deeply flawed for a number of reasons. Firstly, the Economic Assessment makes it clear that costs arising from Scope 3 greenhouse gas emissions are not included. This is a direct contradiction of the Court of Appeal decision on the Mt Pleasant Coal mine. It is inconsistent with that judgement, which is a binding precedent in NSW that must be followed. So, the full costs of climate change from the project are not included in the assessment.

Secondly, the Marginal Abatement Cost framework used to estimate indirect costs from Scope 1 and 2 emissions is outdated. Current NSW Treasury Guidance, TPG23-08, is the most updated guidance of Marginal Abatement Cost in NSW which should be used, but the assessment instead relies on the outdated TPP17-03. It makes absolutely no sense to suggest this MAC should not be used because it applies to public entities only. That would mean, for example, that the costs to NSW of a privately-developed coal mine would be estimated as having far less costs than a publicly-developed coal mine - a clearly illogical outcome. Major projects in NSW must properly quantify the costs of their direct and downstream greenhouse gas emissions. In our view, this change to use updated costs is also required to comply properly with the Court of Appeal decision.

There are a large number of people working at the HVO site, the Economic Assessment provided with the amended report estimates an average of 1,311 full-time equivalent workers, and this number does not include on-site contractors, whose number is not estimated. The closure of the site at the end of 2026 should this project not proceed will have a considerable impact on them and flow on impacts on families, suppliers and the local economies of Singleton and Muswellbrook. The companies that own the site have wholly failed to prepare the HVO workforce for this closure and invest in programs to support them.

The economic assessment for this project requires independent scrutiny, particularly in light of the recent decision of the Court of Appeal regarding the need to consider the socio-economic costs of climate change in the locality of the development. The proponent's assessment adheres to the technical note on economic assessment and excludes the economic impact of downstream emissions on NSW but this approach is at odds with the Court of Appeal's decision. The Department needs to update the Technical Note to reflect contemporary and evolving understanding of the scale of the costs of climate change for NSW but the fact that this has not yet been done doesn't mean assessments do not need to be responsive to it.

Other elements of the economic assessment warrant scrutiny. The analysis uses "input cost data provided by HVO" to estimate \$10,413.9 million in "intermediate inputs" supplied from within NSW over its life-cycle in NPV terms. This is roughly five times the total capital expenditure estimated for the HVO complex over the life of the Continuation Project in Figure 3 of the Economic Assessment. Without the company disclosing the nature of the "input cost data" supplied it is unclear how inputs are magnified beyond actual expenditure in this way.

The Economic Assessment provided by EY makes no mention of the coal demand expectations upon which the assessment is based. Coal price analysis is conducted, but not demand. The economic positives claimed to accrue as a result of this project rely on the assumption that there will be ongoing demand for seaborne thermal coal out to 2045 and therefore, the proponent's economic assessment must describe and analyse the global warming scenario consistent with that expectation and calculate the costs of climate change in NSW accordingly. While the economic assessment is silent on this subject, the Amendment Report clarifies that the business logic of the project rests on coal demand projected in the IEA's Stated Policies Scenario (WEO 2024). The Stated Policies Scenario is consistent with a trajectory that will lead to global average warming of well over two degrees, perhaps as high as 2.7 degrees. This means the Department must consider that this project entails the kind of damage outlined in the worst case scenario of the National Climate Risk Assessment.

The proponent also cites in the Amendment Report a US government document called "International Energy Outlook 2023" which it claims predicated "demand for coal to still be at a similar level to demand now, under all scenarios." Such a scenario is consistent with the highest possible damage cost to NSW as a result of climate change. This is the future that Glencore and Yancoal foresee and which to profit from bringing to reality. It is wholly at odds with NSW's statutory commitment to prevent catastrophic global warming.

The Department must not allow the proponent of this project to avoid disclosing the consequences for NSW of this mine extension.