

27 October, 2020

Submission: Russell Vale Underground Expansion Project

Thank you for the opportunity to make a submission on this project.

Lock the Gate Alliance objects to this project. Wollongong Coal's Russell Vale UEP poses unacceptable risks to the local community, our drinking water catchment and to the climate.

On the eve of a determination on this project, the Commission has a set of information before it from the proponent and the Department of Planning that is not fit for purpose. The Economic Assessment does not present an accurate assessment of the costs and benefits. In addition, alarming concerns raised by Dr Gang Li from the Resources Regulator about subsidence risks to the catchment have not been independently investigated and assessed by the new 'Independent Advisory Panel for Underground Mining' nor by the old 'Independent Expert Panel for Mining in the Catchment'.

Our submission is that there is no strategic need to endanger the integrity of the drinking water catchment and the health of the Russell Vale community in order to add half of one tonne of export metallurgical coal on average for just five years to a volume of exports that last year reached 184Mt. Approval of this project would generate costs and exacerbate risk that will outweigh promised benefits (many of which are unlikely to materialise). For a small project, the greenhouse gas emissions would be substantial and will add to the state, national and global GHG inventories at a time when emissions need to be reduced, not increased. At a state level, NSW policy requires a cut of 35% by 2030.

Recommendations

1. **This project should be refused consent**

If the NSW IPC declines to refuse consent, then we ask that Commissioners carefully consider recommendations 2- 8 below.

2. **Request an independent review of subsidence risk:** An 'Independent Advisory Panel for Underground Mining' has been established to "provide the Department and the Independent Planning Commission of NSW (IPC) with access to world-best scientific advice when assessing underground coal mining proposals under the Environmental Planning and Assessment Act 1979". This Panel should be asked to provide advice on the Russell Vale UEP.

3. **Request an independent review of the economic assessment:** The NSW IPC should request an extension of time to make a determination in order to allow time to commission an independent review of the Cadence Economics July 2019 'Economic Impact Assessment of The Russell Vale Colliery'. \$120M in corporate taxes attributed to the project will not materialise, the net producer surplus is likely to be only 25% or less than claimed and significant other costs including abatement of GHG emissions and water treatment require greater scrutiny. In addition, Dr Li's evidence has revealed a greater risk that a higher volume of surface water may be lost if subsidence is significantly greater than predicted. The cost of additional losses of surface water should be considered.
4. **Condition B12 is unlawful and requires amendment:** It should be amended to delete "or an alternative mechanism agreed by the Planning Secretary and DPIE Water" and given the warning that licences may not be obtainable and the condition amended so that licences must be obtained prior to development occurring:

"The Applicant must obtain all necessary water licences for the development, including during rehabilitation and following mine closure, under the Water Act 1912 and/or the Water Management Act 2000 prior to commencement of the development ~~the take of water occurring, or an alternative mechanism agreed by the Planning Secretary and DPIE Water.~~"
5. **Assess new information on subsidence risk against likelihood this project can meet the NorBE test:** the latest information from Dr Gang Li and responses to that information from other staff at the Resources Regulator suggest that the likely impact on water quality from subsidence will not be known until *after* mining begins. If this is the case, this may not satisfy the requirements of the Drinking Water SEPP, which would mean the Commission cannot grant consent to this project. The impact of emplaced coal on water quality must also be settled prior to a determination as this is also a NorBE requirement.
6. **Fugitive and downstream emissions must be mitigated or offset:** Condition B8.(a)(iii) will not result in any meaningful action to mitigate the large fugitive emissions footprint of this project. NSW DPIE have proposed a condition of consent (B8.(a)(iii) which would require the Applicant to "*take all reasonable steps*" to "*improve energy efficiency and reduce greenhouse gas emissions of the development*". In the draft conditions of consent, the terms 'improve' and 'reduce' are not defined. The IPC should specify language in this consent condition which will either lead to robust, measurable results to reduce and improve, or to offset if reduce and improve are not possible at this point in time. Justice Pain found that this power is available to the decision maker in *Hunter Environment Lobby Inc v Minister for Planning* [2011] NSWLEC 221 and the Mining SEPP clearly requires the IPC to consider imposing such conditions for emissions of all kinds.
7. **Impose a condition of consent that will mitigate or offset 100% of the project's 103,500 t CO₂-e emissions from electricity use:** typically, language in Air Quality

and Greenhouse Gas Management Plans is so vague that meaningful mitigation or offsetting of emissions from electricity use is unenforceable. Section 14 (1) (c) of the Mining SEPP clearly requires the IPC to consider imposing conditions to ensure that all greenhouse gas emissions, including downstream emissions, are minimised to the greatest extent practicable.

- 8. Note community concerns that Wollongong Coal is not ‘fit and proper’:** the track record of the proponent suggests strongly that many of the positive socio-economic benefits promised will likely not arise from this project, whilst the risk of negative impacts will be amplified.

Impact on Water Resources

Catchment mining action plan

The Government [announced in April 2020](#) that it had accepted all of the recommendations made by the Independent Expert Panel for Mining in the Catchment. At the time, Minister Stokes said: “We’ve accepted all of the recommendations from the panel and have established an interagency taskforce to implement a detailed action plan throughout this year.”

The action plan includes the following (*Lock the Gate comments relevant to the Russell Vale UEP and the catchment action plan are in italics*):

- 1. Ensuring there is a net gain for the metropolitan water supply by requiring more offsetting from mining companies;**

There does not appear to be an enforceable condition that would require a net gain for the metropolitan water supply. In the absence of this - if predictions are correct - there will be a net loss of about 10ML per annum.

- 2. Establishing a new independent expert panel to advise on future mining applications in the catchment;**

An ‘[Independent Advisory Panel for Underground Mining](#)’ has been established to “provide the Department and the Independent Planning Commission of NSW (IPC) with access to world-best scientific advice when assessing underground coal mining proposals under the Environmental Planning and Assessment Act 1979”, however it appears that this Panel has not been asked to provide advice on the Russell Vale UEP. Furthermore, it does not appear that the IPC has been given advice from the Chief Scientist’s Independent Expert Panel for Mining in the Catchment, despite this project being among that panel’s terms of reference.

- 3. Strengthening surface and groundwater monitoring;**

Recommendations to improve monitoring to ensure the impacts of mining are correctly identified, prevented and mitigated have been made repeatedly by expert panels and reviews over two decades and it is unacceptable for further mining to be granted consent without adequate and robust monitoring.

4. **Improving access to and transparency of environmental data;**
5. **Adopting a more stringent approach to the assessment and conditioning of future mining proposals to minimise subsidence impacts;**

Dr Li's assessment of the level of uncertainty surrounding the subsidence risk posed by this project is alarming. Lock the Gate has called for an independent assessment of the subsidence risks raised by Dr Li, however the Planning Minister's insistence that a determination be made within 12 weeks makes it very unlikely that the IPC has time to do this.

6. **Reviewing and updating current and potential future water losses from mining in line with the best available science;**

We note that DPIE Water recommended the proponent be required to identify and obtain entitlements to account for water that is already being taken as a result of historic mining on this site but no action has been taken or proposed by the proponent or the Department to implement this recommendation.

7. **Introducing a licensing regime to properly account for any water losses; and**

We note that the wording of this recommendation is misleading in that it suggests a licencing regime does not currently exist. This is not the case: there is a requirement already to obtain water access licences to account for water taken in the course of mining, and a water sharing plan in place and existing mechanisms to obtain licences. The fact is that the agencies responsible have failed to uphold the law in this regard. The Department of Planning has made what we believe is an unlawful proposed condition of consent, referring to an 'alternative mechanism' if the company is unable to obtain Water Access Licences in accordance with the Water Management Act 2000. Neither the IPC nor the Department have the legal authority to recommend or impose conditions that are not lawful under the Water Management Act 2000, which clearly requires licences be held to account for water taken in the course of mining.

8. **Undertaking further research into mine closure planning to reduce potential long-term impacts.**

Surface water

A loss of 50ML of drinking water over five years cannot be described as a “net gain for the metropolitan water supply”

The underground mine project would be located within the Cataract Reservoir catchment, which is a source of drinking water for Sydney and lies within the Metropolitan Special Area, a restricted-access area designated to protect Sydney’s drinking-water catchments. This project will cause the loss of surface water of approximately 10ML per annum, which would otherwise flow into the Cataract Reservoir.¹ A loss of 50ML over five years cannot be described as a “net gain for the metropolitan water supply”, which is what Minister Stokes’ catchment mining action plan promises.

Condition B17 (f) (iv) of the draft development consent does not appear to require a net gain for the metropolitan water supply as a result of this development. It says that a “trigger action response plan” should “respond to any exceedances of the performance measures or performance criteria, and repair, mitigate and/or offset any adverse surface water impacts of the development”. There do not appear to be any performance measures or performance criteria in Table 3 that would require that more than 10ML per annum are returned to the catchment or offset. The best way to ensure the integrity of the drinking water catchment is to prohibit further mining underneath the Special Areas.

Unknown level of subsidence risk

Uncertainty and marginally stable pillars: an unknown that is fundamentally important for a meaningful subsidence prediction/assessment and risk-management

A critically-important issue has emerged regarding uncertainty about the impact new mining could have on marginally-stable coal pillars in the overlying Bulli workings above where mining is proposed. This information raises doubt over similar issues to those which prompted the Planning Assessment Commission in 2016 to decline to approve earlier attempts by Wollongong Coal to expand *longwall* mining at Russell Vale, primarily due to uncertainty associated with subsidence and groundwater impacts.

The Principal-Inspector – Subsidence, NSW Resources Regulator [told the Russell Vale IPC Panel Chair on 13 October](#) 2020 (pg8) that “without a reasonable understanding of this key risk factor [marginally-stable pillars], we are in the dark in making decisions in relation to Russell Vale Colliery’s proposed revised underground expansion project ... As a subsidence engineer working many, many years, I say this: this is fundamentally important for a meaningful subsidence prediction/assessment and the subsequent development of risk-management plans.”

¹ Russell Vale Revised Underground Expansion Project 3687_R05 RtPAC Second Review FINAL Revised Preferred Project Environmental Assessment, pg 41

This information is in stark contrast to assurances made by NSW DPIE in the Russell Vale Final Assessment Report that there is “negligible risk of pillar failure”. Please note in addition that we understand that the Department’s confidence in its assertion of “negligible risk” is reliant - at least in part - on advice from Professor Hebblewhite. Whilst we have no quarrel with Professor Hebblewhite’s credentials nor that he has been appointed as a member of the Government’s new advisory panel, we do note that he was “engaged by Wollongong Coal”.² This creates - at a minimum - a perceived conflict of interest.

Following a meeting between the NSW IPC and the Resources Regulator, a formal, written [advice was provided to the IPC by the Resources Regulator on 16 October 2020](#). That advice confirmed:

- The subsidence prediction report by SCT Operations notes the existence of “marginally stable pillars” within the overlying Bulli Pillar Workings. The peer review by Prof Hebblewhite of the subsidence prediction suggests that the areas of marginally stable pillars needs to be identified.
- The mining of first workings may have a potential to trigger the instability of the marginally stable pillars in the overlying Bulli Seam.
- The identification of the marginally stable pillars in relation to the first workings was critical to determine the potential subsidence impacts.
- Resources Regulator staff had not seen clear results of the mine operator’s investigation to identify the locations of the marginally stable pillars.

The Resources Regulator has subsequently advised that this issue can be addressed “post-approval” but in our view, there is a risk that this may not be *considered* advice given that it was supplied in reaction to a significant and new assessment by Dr Gang Li that did not emerge until week 5 of a 12-week determination process and not until after NSW DPIE had completed their Final Assessment Report. This circumstance highlights the danger and risk of serious environmental harm created by the short timeframes being imposed on the IPC by the Minister when considering consent for major mining projects.

As there is now disagreement between experts on the level of subsidence risk, our recommendation is that the IPC request that the Minister’s new independent expert panel be tasked with providing advice to the Russell Vale panel on this issue prior to determination.

Where there is no strategic need for the coal, is there really justification for subjecting the water catchment to the risk of further damage?

The FAR asserts that leaving 25 m wide coal pillars underground will prevent significant subsidence in the catchment above, providing that the pillars do not become unstable and topple over. The FAR assumes that the pillars proposed in this area at 320 m depth have a less than 1 in 1,000 (0.1%) probability of failure. In the event that any pillars were still standing in the Bulli Seam, then the estimated probability of the proposed mining in the

² Transcript of NSW IPC meeting with Department of Planning, Industry and Environment, 14 October 2020, Pg 4

Wongawilli Seam to cause instability of these pillars - which could cause a predicted 850 mm in subsidence would be “less than 1 in 100 (1%)”.

WaterNSW describes Wollongong Coal’s proposal as a “*unique mining proposal where a third coal seam is proposed to be undermined under already mined Bulli and Balgownie seams*”.³ According to Pells Consulting, subsidence impacts are difficult to predict:

“The prediction of the impacts of subsidence on swamps, creeks, groundwater and infrastructure depends on the accuracy of the subsidence predictions themselves. However, it is a fact that these predictions of subsidence, and in particular tilts and ground surface strains, is fraught with uncertainty. The main reason for this is the impact of geological structures, often unknown, and, in the case of multi-seam mining is exacerbated by limited precedent.”⁴

Wollongong Coal admits that instability in the overlaying old Bulli seam workings may cause pillar collapse and subsidence of the surface of almost 1 metre.⁵ It is unacceptable for the NSW government to allow such risky mining in the water catchment for 5 million people of Greater Sydney.

Surface Water Licensing

WCL have indicated that they may not be able to acquire a WAL by trading with licence holders within the GMRUR WSP. In light of this, the Department says it has held discussions with relevant agencies in relation to the surface water licensing situation and notes that alternatives and options exist outside of the licensing regime under the WM Act. The Department has recommended a condition requiring WCL to obtain all necessary water licences for the project under the Water Act 1912 and/or the WM Act, or an alternative mechanism agreed by the Planning Secretary, DPIE Water and WaterNSW. This is despite DPIE Water making it clear in its advice that no “alternative mechanisms” are available, or supported by the agency. Further, we understand that there is no unallocated water in this system that would allow a controlled allocation. Lock the Gate contends that there is no “alternative mechanism” to a WAL that is lawful and therefore that this proposed arrangement is in breach of NSW’s water laws.

There are lawful mechanisms available to obtain water access licences and a requirement for mining operations to comply with this law. We are alarmed by the Department’s implication that it will facilitate special extra-legal arrangements for this coal company to bypass the water sharing plan and the Water Management Act. As DPIE Water makes clear in the agency advice summarised in Table 6 of the Assessment Report, “WCL must obtain

³ WaterNSW, 29 August 2019,

https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=MP09_0013%2120200820T023222.357%20GMT

⁴ Pells P.J.N. & Pells S.E. 2011 Review of subsidence and related facets of the NRE No. 1 Colliery - underground expansion project draft environmental assessment Consultants report by Pells Consulting for Gujarat NRE. Ref P043.R2 (Final draft) Oct 2011

⁵ Russell Vale Revised Underground Expansion Project (MP09_0013) | Secretary’s Final Assessment Report, p.13, accessed at <https://www.ipcn.nsw.gov.au/projects/2020/08/russell-vale-underground-expansion-project> (“DPIE Final Assessment Report”) p. 34

surface Water Access Licences (WALs) through trade or controlled allocation.” There is no “alternative mechanism” and the IPC must ensure that the Department does not create extra-legal arrangements to serve the interests of this coal company that bypasses NSW water law.

The DPIE Water very clearly stated in its submission in April 2020 that “Surface water take cannot be offset via apportionment from current groundwater entitlements, nor can the predicted surface water take be accounted for under harvestable rights.”⁶ And yet, the Department’s Assessment Report lists these mechanisms as options that WCL wants to negotiate.

We believe that the Department’s approach to this issue is in breach of its obligation to provide accurate and lawful assessment advice to the IPC to enable it to make its determination of this project. As well as ignoring DPIE Water’s advice that “alternative mechanisms” do not exist and are not supported, the Department also, in its Assessment Report, listed water access licences among the licences and approvals that must be granted consistent with a state significant development consent. This is not the case and either demonstrates ignorance of the EP&A Act on the Department’s behalf or a deliberate attempt to mislead the IPC about the legal status and purpose of water access licences. Either way, it makes the Department’s assessment unreliable, is a breach of its obligations to the IPC and leaves the Commission in a position where it is being asked to make a determination based on incorrect information.

There is no legal requirement that water access licences be substantially consistent with any consent granted for this project

Water access licences operate independently of consent and are not listed in s.4.42 of the EP&A Act, contrary to NSW DPIE’s assertion at point 57 of the FAR. A legal advice has been provided separately to the Commission on this matter by Lock the Gate.

Under Section 4.42 of the EP&A Act, a number of other approvals are required, but must be substantially consistent with any consent granted for the project. These include:

- a mining lease under the Mining Act 1992;
- approval under the Coal Mine Subsidence Compensation Act 2017;
- consents under the Roads Act 1993;
- an Environment Protection Licence (EPL) under the Protection of the Environment Operations Act 1997; and
- notification under the Work Health and Safety (Mines) Act 2013 for high risk activities, including emplacement of reject materials.

They **do not** include water access licences under the Water Act 1912 and/or the WM Act.

Water access licences are legal property in NSW and can be obtained only by purchase from a licences holding or via a controlled allocation as set out in the Water Management Act 2000.

⁶ DPIE Water. April 2020.

https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=MP09_0013%2120200915T070409.365%20GMT

Water quality and the NorBE test

The SEPP Sydney Drinking Water Catchment requires that a consent authority must not grant consent to a proposed development unless it is satisfied that the proposed development would have a neutral or beneficial effect (NorBE) on water quality.

NSW DPIE - at point 61 in the FAR - claims that *“WaterNSW are satisfied that the development would have a neutral impact on water quality within the catchment”*. This is a misleading statement. In their 29 August 2019 advice, WaterNSW did not say they were *“satisfied”* the development would have a neutral impact on water quality, they found that the development *“has potential”* to achieve a NorBE on water quality.⁷

“Overall, WaterNSW considers that the project would not have any significant impacts on water quantity and has the potential to achieve a neutral or beneficial effect (NorBE) on water quality, subject to:

- *the provision of sufficient additional information*
- *the imposition of performance measures for Cataract Creek, Cataract River, Bellambi Creek, Cataract Reservoir and upland swamps overlying the mining area (see WaterNSW’s suggested measures in Attachment 1)*
- *a requirement that the mining company does not cause any exceedances of the performance measures, and*
- *requirements for a range of monitoring and management plans for subsidence, surface water, groundwater and upland swamps.”*

The latest information from Dr Gang Li and responses to that information from other staff at the Resources Regulator suggest that the likely impact on water quality from subsidence will not be known until post-approval conditions are being implemented and mining has begun. If this is the case, this may not satisfy the requirements of the Drinking Water SEPP, which would mean the Commission cannot grant consent to this project.

Water quality and the emplacement of reject coal underground

WCL confirmed that reject material that cannot be beneficially reused as fill material would be initially emplaced within roadways for the former Wongawilli longwalls and then within the roadways generated by the first workings associated with the Revised UEP mining. In their FAR, NSW DPIE says these roadways are mostly dry, therefore in the short term, groundwater interaction with the emplaced reject material is expected to be limited. In the longer term, groundwater would drain into these roadways and they would fill with groundwater as the former workings re-pressurise.

⁷ WaterNSW, 29 August 2019,

https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=MP09_0013%2120200820T023222.357%20GMT

The IESC (March 2020) raised concerns about “potential long-term impacts of adit outflows” and “expected changes in outflow quantity and quality” if groundwater discharged at the adit “has interacted with rejects deposited within the mine workings”.

Condition B35. (e) (iii) is problematic in that it suggests a possibility that reject coal may not meet the NorBE test for emplacement in the mine. Reject coal “is only emplaced underground if it meets the neutral or beneficial effect on water quality test in accordance with the *Neutral or Beneficial Effect on Water Quality Assessment Guideline* (SCA, 2015)”. WCL’s CEO said on the site tour that emplacement underground is a last resort. If this is true, then it means the company would only do this with no other options left to manage the reject coal. If this is the case and the emplaced coal then failed the NorBE test, how should this situation be managed? And if it gets to this, then by definition, this means that the development did not meet the NorBE SEPP test in the first place and should not have been granted consent.

Adit water

The matter of long term water flow from mine adits as goafs re-pressurise was considered within the Independent Expert Panel for Mining in the Catchment report dated 14 October 2019. This report found that where mine entrances (or other natural or mining-induced flow conduits) emerge outside the Special Areas at an elevation below the groundwater table and cannot be effectively and safely sealed, a perpetual water loss is likely. The IESC and the IEPMC agree that water flowing from these conduits may require treatment in perpetuity before discharge to waterways or being put to beneficial use (IESC, 22/01/20).

After the project at Russell Vale is finished the mining void will fill up with water. The water will keep rising until it reaches the adit (mine portal) in the Illawarra Escarpment in about 2057. The water will then overflow through the adit and the outflow will slowly increase, reaching 0.3ML (300,000 litres) per day in 2179. WCL’s modelling shows that the volume of water outflow at the adit above Russell Vale will continue to flow, even beyond 2179. In other words, there will be escalating water discharge from the adit for at least 120 years with water likely to flow in perpetuity.⁸

⁸ Geoterra/GES, p 97. Actual page 390 of this document:
<https://majorprojects.accelo.com/public/7f32dda24beaa9a6c18ea7d52be9c53d/RtPAC%20Second%20Review%20FINAL.pdf>



Figure 10-23 Illawarra Escarpment Adit Drainage

As the NSW EPA point out in its comments on the project “recent experience in the Southern Highlands demonstrates the difficulty in finding a long term solution to legacy groundwater discharges”. The NSW EPA submission (5 March 2020) and the FAR (pg 49) suggest ongoing problems with the management and treatment of adit water:

- dissolved copper concentrations presented by the proponent from 2015 and 2017 are up to 311 times the ANZG (2018) default guideline values for freshwater aquatic ecosystems (95% species protection level)
- Similarly, nickel is 35 times and zinc 10 times the respective default guideline values in ANZG (2018)
- Existing mine water quality is alkaline pH (8.4 – 8.55); fresh to brackish (1,390 – 2,210 $\mu\text{S}/\text{cm}$); and has slightly elevated levels of sulfate and metals (copper, nickel and zinc).

The EPA says that if this discharge is not diluted or treated, impacts to the receiving environment of Bellambi Gully Creek are likely. NSW DPIE say that WCL has committed to a funding arrangement which would be sufficient for 10 years of monitoring and treatment of adit discharge water, including - if required - the construction and ongoing operation of a reverse osmosis (RO) plant to treat 110 ML/year of water to a potable standard over a 10 period at a cost of around \$2.4 million (pg 49, FAR). The Department accepts that WCL is required to take direct responsibility for management and operational cost of the water treatment systems following mine closure for a “reasonable period of time”, defining this as ten years of treatment for a problem that is expected to last for a century or in perpetuity. If you offered anyone in the community a choice between shouldering the burden of this problem for 10 years vs. forever less ten years, it is not hard to predict which option rational people would choose.

There is no analysis in the materials before the commission of the likely cost of treating this water in perpetuity. This problem is something that DPIE proposes is managed in an Adit Water Discharge Management Plan, to be completed within 12 months of project approval.

As discussed below, this is a contributing factor to the Economic Assessment not being fit for purpose and in need of independent review.

Greenhouse gas emissions

Key points

- If the Russell Vale coal project is approved, an additional 11.1Mt CO₂-e will be released into the atmosphere to mine just 3.7Mt of coal over 5 years at Russell Vale.
- An *additional* 304,600 t CO₂-e per annum of Scope 1 and 2 emissions will be added to the NSW GHG inventory at a time when NSW Government policy requires a *reduction* in GHGs of 35% by 2030. In a recent submission on the Narrabri Gas project, former Chief Scientist of Australia Professor Penny Sackett stated that meeting NSW's own 2030 GHG target “*will require an annual new reduction of about 2.4 MtCO₂-e per year, year on year*”.
- If approved, Russell Vale would be in the top 100 largest emitters of Scope 1 emissions in Australia.
- Umwelt describe Russell Vale a “gassy mine”⁹, meaning a lot of methane would be released into the atmosphere during mining. Australia is already - by far - the largest exporter of metallurgical coal. Russell Vale would add only a very small volume of additional coal (about an extra 0.25%) to export volumes but it would add a large volume of GHGs in NSW at a time when we need to be reducing emissions in NSW.

GHG emissions from the proposed project

Table 3.1 GHG Emission Summary for the Revised Preferred Project

Stage	Scope	Source	Source Totals (t CO ₂ -e)	Scope Totals (t CO ₂ -e)
Life of Mine	Scope 1 (Direct)	Diesel use	6,097	1,418,997
		Fugitive emissions	1,412,900	
	Scope 2 (Indirect)	Electricity	103,500	103,500
	Scope 3 (Indirect)	Product use	9,192,798	9,623,427
		Associated with energy extraction and distribution	15,163	
		Product transport	415,117	
		Waste transport	349	
Total GHG Emissions for Operations				11,145,924

⁹ GREENHOUSE GAS AND ENERGY ASSESSMENT, Russell Vale Revised Underground Expansion Project, FINAL July 2019, pg 5

Comparison of GHG emissions from Russell Vale to the global total is absurd and acts to distract attention from a relevant consideration: NSW's 35% emissions reduction target

The Department of Planning (NSW DPIE) has made a decision to frame the project's GHG emissions as being insignificant, when in fact, they are of a scale that puts the Russell Vale project into the club of "Australia's largest greenhouse gas emitters". In addition, there is not a single mention in NSW DPIE's FAR of NSW's emissions reduction target of 35% by 2030.

The Department clearly has a blind spot on this issue. The same thing happened in the Narrabri Gas FAR. The 35% emissions reduction target was not mentioned in that document either. As discussed above, in this light, emissions from the project are very significant, particularly when assessed against NSW's GHG abatement task out to 2030.

NSW DPIE has offered no analysis at all of what impact this project would have on NSW's emissions reduction task. Instead NSW DPIE chose to quote the proponent's nonsensical comparison of the project's emissions to the global total in Table 12 which DPIE says represents a summary of its own assessment:

"The GHGEA indicated that the forecast project-related emissions would contribute to 0.0005% of annual global GHG emission estimates. Based on this estimate, Umwelt considered that the project, in isolation, is unlikely to influence global emissions and climate change trajectories."

To say that a project which *increases* global emissions is "*unlikely to influence global emissions*" is clearly illogical and wrong. To again quote former Chief Scientist Professor Sackett: "*Any single source of greenhouse gas emissions is a small fraction of the total, yet the cumulative, shared problem of climate change is enormous and quite possibly existential.*"¹⁰

Scope 1 and Scope 2 emissions from this project are unusually large as a percentage of total emissions at 14% (1,523,000 t CO2-e of the total 11,145, 924 t CO2-e)

As with all fossil fuel projects, Scope 3 emissions from this project are most significant and will have the biggest impact on our climate. The project is forecast to be associated with approximately 9,624,000 t CO2-e of Scope 3 emissions, which would be generated by third parties who transport and consume the project's coal products. What is less usual with the Russell Vale UEP is that Scope 1 and Scope 2 emissions would represent almost 14% of total emissions.

1,523,000 t CO2-e of Scope 1 and 2 emissions would be generated from the combustion of diesel, release of fugitive emissions and the use of electricity over the 5-year mine life". This is equivalent to an *additional* 283,799 t CO2-e per annum of Scope 1 emissions and 20.7 t CO2-e per annum of Scope 2 emissions. In total, per annum, 304,600 t CO2-e of Scope 1

¹⁰ Ibid, Sackett, pg 3

and 2 emissions would be added to the NSW GHG inventory at a time when NSW Government policy requires a *reduction* in GHGs of 35% by 2030.

In a recent submission on the Narrabri Gas project, former Chief Scientist of Australia Professor Penny Sackett stated that meeting NSW's own 2030 GHG target “*will require an annual new reduction of about 2.4 MtCO₂-e per year, year on year*”.¹¹ Applying the logic of Professor Sackett's submission to the Russell Vale project reveals that rather than contributing to a NSW effort to find *2.4 MtCO₂-e per year in emissions reductions, year on year*, **the Russell Vale project would add about 0.3 MtCO₂-e every year for the next five years**, thus working in the opposite direction and nulling about 12% of the intended reductions in all other areas of NSW industry and commerce every year for the next 5 years. This analysis *excludes* emissions from transport of the coal to India and then burning it.

Russell Vale would be on the list of Australia's 100 largest Scope 1 emitters of GHGs

Direct fugitive emissions of methane from this project would be substantial at 1,412,900 t CO₂-e. The mine will be classified as a “Gassy Mine” and generate post mining emissions from stockpiled ROM coal.¹²

Fugitive emissions from this project have been calculated with a GWP of 25,¹³ however over a 20-year period, methane is 84 times more effective than CO₂ in trapping heat, and 28 times more effective over 100 years (IPCC 2015)¹⁴. Using a GWP of 28 means that the calculation for fugitive emissions increases from 1,412,900 t CO₂-e to 1,582,448 t CO₂-e (an addition of 169,548 t CO₂-e).

Adding 169,548 t CO₂-e to the proponent's out-of-date estimate results in an increase in Scope 1 and 2 emissions from 1,523,000 t CO₂-e to 1,692,548 t CO₂-e. This means the annual emissions from the project will be 338,509 t CO₂-e.

A comparison of projected *annual* Scope 1 emissions from Russell Vale of 304,600 t CO₂-e against the federal government's '[Greenhouse and energy information by registered corporation 2018-19](#)' data reveals that - if approved - Russell Vale would be in the top 100 largest emitters of Scope 1 emissions in Australia.

The [Clean Energy Regulator's National Greenhouse and Energy Reporting website](#) states that the Australian Government's 'safeguard mechanism' (which commenced on 1 July 2016) “applies to facilities that emit more than 100,000 tonnes carbon dioxide equivalent (CO₂-e) covered emissions in a financial year”. These facilities are categorised by the scheme as being “Australia's largest greenhouse gas emitters”.¹⁵ With projected annual

¹¹ Expert Report on the Greenhouse Gas and Climate Implications of the Narrabri Gas Project (SSD-6456), Professor Penny D Sackett, Honorary Professor, Climate Change Institute, The Australian National University, Advice Provided: 3 August 2020, pg 24

¹² Greenhouse Gas And Energy Assessment, Russell Vale Revised Underground Expansion Project, Final, Umwelt (Australia) Pty Limited, pg 5

¹³ Fugitive emissions have been calculated using the Method 1 approach, as described in the National Greenhouse Accounts (NGA) Factors 2017 (DEE 2017). Umwelt GGEA, pg 133

¹⁴ IPCC (2015) Climate Change 2014: Synthesis Report, Box 3.2, Table 1.

¹⁵ <http://www.cleanenergyregulator.gov.au/ERF/About-the-Emissions-Reduction-Fund/the-safeguard-mechanism>

emissions between 304,600 t CO₂-e and 338,509 t CO₂-e per annum, Russell Vale would meet this 'largest emitters' criteria more than three times over.

The Australia Institute noted in a research paper earlier this year that in 2017 *"fugitive emissions from 'solid fuels', that is from coal and coal mines, was 10% of NSW emissions."*^{16 17} As the NSW Government notes, most (almost 90%) "fugitive emissions in NSW come from underground (11.2 Mt) and surface (1.4 Mt) coal mines".¹⁸

Minimising GHG emissions "to the greatest extent practicable"

Clause 14 of the Mining SEPP says that before granting consent for a development, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure *"that greenhouse gas emissions are minimised to the greatest extent practicable"*. Reading through the FAR and the proposed conditions of consent, it is clear that neither WCL nor NSW DPIE have taken this policy requirement seriously.

NSW DPIE have proposed a condition of consent (B8.(a)(iii)) which would require the Applicant to *"take all reasonable steps"* to *"improve energy efficiency and reduce greenhouse gas emissions of the development"*. In the draft consent, 'reasonable' is defined as:

"applying judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements"

As the terms 'improve' and 'reduce' are not defined in the consent conditions, it is up to the IPC to use language in consent conditions which will lead to robust, measurable results. If it is not possible to mitigate these emissions at this point in time, the Commission must require offsets for the entire 1.4Mt CO₂-e of fugitive emissions. As the proponent will not be paying any company tax, no contribution will be made to the Commonwealth's Emissions Reduction Fund, therefore the burden of ensuring that emissions from this project are minimised to the greatest extent practicable falls on the IPC.

On the particular issue of offsets, please note Justice Pain's 2011 judgement on conditioning GHG emissions in *Hunter Environment Lobby Inc v Minister for Planning* [2011] NSWLEC 221. At point 93 of the judgement, Justice Pain found:

"It was common ground between the experts that scope 1 emissions are a direct

¹⁶ Department of the Environment and Energy (2019) State and Territory Greenhouse Gas Inventories 2017
<https://www.environment.gov.au/system/files/resources/917a98ab-85cd-45e4-ae7abcd1b914cfb2/files/state-territory-inventories-2017.pdf> page 29

¹⁷ TAI, Enough Scope Coal mines, scope 3 emissions and NSW climate policy, Tom Swann Rod Campbell, February 2020, pg 9

¹⁸ NSW DPIE, NSW Emissions,
[https://climatechange.environment.nsw.gov.au/About-climate-change-in-NSW/NSW-emissions#:~:text=Fugitive%20emissions%20from%20fuels%20%E2%80%93%2014,\(11%25%20of%20total%20emissions\)&text=Fugitive%20emissions%20in%20NSW%20are,\(1.4%20Mt\)%20coal%20mines.](https://climatechange.environment.nsw.gov.au/About-climate-change-in-NSW/NSW-emissions#:~:text=Fugitive%20emissions%20from%20fuels%20%E2%80%93%2014,(11%25%20of%20total%20emissions)&text=Fugitive%20emissions%20in%20NSW%20are,(1.4%20Mt)%20coal%20mines.)

consequence of the carrying out of the activities authorised by the project approval, and are the emissions over which the proponent has potentially greatest control. A condition requiring the offsetting of emissions directly attributable to the operation of the project, in order to address direct potential or actual adverse impacts on the environment, is related to the purpose of assessing and approving a significant extension of a coal mine both in terms of time and rate of extraction of the resource. I am satisfied that a condition requiring Ulan to offset the scope 1 emissions of the project would be within the scope and purpose of the power conferred first on the Minister and now on the Court under s 75J.”

There is no evidence before the Commission that fugitive emissions will be minimised ‘to the greatest extent practicable’

According to the NSW Chief Scientist and Engineer, new technologies have been piloted in NSW coal mines “to prove their technical viability and safety for capturing and combusting ventilation air methane (VAM) at low concentrations (less than one per cent) and high temperatures”.¹⁹ Despite the clear requirements of the Mining SEPP to consider all ways to mitigate fugitive emissions, none of these technologies have been considered or discussed by the proponent and the applicant.

A quick Google search reveals that there are options that should be discussed. CSIRO has developed three technologies that aim to mitigate methane emissions by either destroying or enriching the gas or capturing the ventilated air – known in the industry as Ventilation Air Methane (VAM) – from coal mines and using it to generate electricity:

1. VAMMIT is a compact flow reversal reactor with a newly-structured regenerative bed to destroy methane in a cost-effective manner
2. VAMCAP is a capture and enrichment unit which essentially collects and separates the methane from the ventilated air using carbon composites.
3. VAMCAT uses a catalytic combustion gas turbine to create electricity from an otherwise waste product.²⁰

The failure to consider these options requires intervention from the IPC. Mitigation of greenhouse gas emissions are in NSW DPIE’s blind spot. There are clearly options available to practicably minimise on-site and electricity-related greenhouse gas emissions (Scopes 1 and 2) and notwithstanding the disagreement over United Wambo’s Export Management Plan condition, a lawful authority and requirement for the IPC to consider mitigating conditions for all greenhouse gas emissions, including downstream emissions. A culture exists in the Department which leads to a concerning lack of meaningful examination of these issues in assessment reports, further leading to vague, unenforceable conditions of

¹⁹ NSW Chief Scientist and Engineer, August 2020, Opportunities for prosperity in a decarbonised and resilient NSW, Decarbonisation Innovation Study, pg 151

²⁰ Ecos. CSIRO, Robert Hobson, Capturing fugitive methane emissions, 31 March 2020, <https://ecos.csiro.au/capturing-fugitive-methane-emissions/>

consent. This means the IPC is failing in its obligations and air quality and greenhouse gas management plans are being developed and signed off by the Planning Secretary which do not deal with a serious, lasting and essentially irreversible environmental impact. Instead, coal mining companies pledge to 'investigate' and 'consider' and 'review' mitigation or offset options. What it does not lead to, is mitigation or offset of greenhouse emissions.

Reviewing “renewable energy opportunities as new technology is developed and becomes viable” is a long, long way from minimising - to the greatest extent practicable - electricity emissions of 103,500 t CO2-e

103,500 t CO2-e of GHGs will be generated from the project's use of electricity.

NSW DPIE mentions the word 'electricity' only once in the entire FAR (pg 66), where they simply acknowledge that emissions from the use of electricity will be generated. There is zero discussion or consideration in the FAR of how emissions from the generation of electricity attributed to the project would be “*minimised to the greatest extent practicable*”. Draft Condition B8.(iii) requires the Applicant to “improve energy efficiency and reduce greenhouse gas emissions of the development”. Condition B9 requires the preparation of an Air Quality and Greenhouse Gas Management Plan that includes how condition B8.(iii) will be implemented “to the satisfaction of the Secretary” prior to the commencement of the mining operations.

The Wilpinjong Coal Mine Extension had similar conditions placed on it when it was approved in April 2017. Their Air Quality Management Plan (Version 6, dated August 2020) - Schedule 3 Condition 20, was [approved by the Planning Secretary](#) on 7 September 2020.²¹ At Section 5.3 of the recently approved Greenhouse Gas Management - Peabody Energy say they will “implement all reasonable and feasible measures to minimise the release of greenhouse gas (GHG) emissions from the Mine”.²² However, regarding their use of electricity, they have not committed to do anything at all. They say only that they “may consider” investigating energy efficiency on site and that they “may” *conduct a review of alternate energy sources*.²³ By way of comparison, WCPL's Scope 2 emissions in total from electricity use are projected to be 242,074 t CO2-e (ie., almost 2 ½ times WCL's Scope 2 electricity emissions).

If you build a house in Russell Vale, DPIE will ensure strict emissions reduction conditions under BASIX (with a 10% to 50% emissions reduction target). If you build a new coal mine project however, the conditions on energy and GHG reduction are loose and generally unenforceable.

²¹

<https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-6764-PA-12%2120200906T211358.862%20GMT>

²² Peabody Energy Air Quality Management Plan, WI-ENV-MNP-0004, August 2020,

<https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-6764-PA-12%2120200908T055934.939%20GMT>

²³ Ibid pg 21

So far, WCL say only that they “*will review renewable energy opportunities as new technology is developed and becomes viable*”.²⁴ in their application, WCL have made no commitment to power any of their energy use with renewable energy, nor have they made a commitment to use GreenPower. GreenPower is 100% renewable energy available for households and businesses through most energy retailers in Australia. The National GreenPower Accreditation Program is a voluntary renewable electricity accreditation program established in 1997. The “new technology” that WCL refers to has been available for decades and commercially viable for businesses like WCL for a very long time.

Russell Vale will produce more Scope 1 and 2 emissions per annum than supermarket chain Aldi’s operations across Australia. In August 2020, ALDI Australia committed to power its stores and warehouses with 100% renewable electricity through a national solar installation program and the procurement of two Power Purchase Agreements (PPAs) with large scale wind farms.²⁵ If supermarkets can do it, so can coal mines.

The IPC can refuse consent on climate change grounds

In his submission to the IPC on Narrabri Gas, barrister Robert White clarified for the Commission the statutory pathways under the EP&A Act by which the IPC must have regard to the impacts of the Project on climate change.

61. There are multiple statutory pathways under the EP&A Act by which the IPC must have regard to the impacts of the Project on climate change, and which permit the IPC to refuse the development on this ground. These are:

a. s 4.15(1)(a), which requires the IPC to take into consideration the provisions of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP), which requires the decision maker to have regard to the downstream impacts of the Project (including fugitive emissions) (s 14(2));

b. s 4.15(1)(b), which requires the IPC to take into consideration the likely impacts of the proposed development, including environmental impacts (which includes the impacts of GHG emissions on climate change); and

c. s 4.15(1)(e), which requires the IPC to take into consideration the public interest, including the principles of ESD.

Economic benefits are outweighed by costs

In 2016, the Planning Assessment Commission concluded that the social and economic benefits of an earlier version of this mine plan (which sought approval for longwall mining)

²⁴ Section 5.12.5, RtPAC

²⁵ ALDI Australia commits to 100% renewable electricity from 2021, Sept 2020, <https://cr.aldisouthgroup.com/en/responsibility/news/aldi-australia-commits-100-renewable-electricity-2021>

were most likely outweighed by the magnitude of impacts to the environment. NSW DPIE's view is that this conclusion was *"largely due to uncertainty associated with subsidence and groundwater impacts as a result of proposed longwall mining in the multi-seam mining environment present at Russell Vale"* (NSW DPIE, FAR, pg v).

Independent analysis of the economic costs and benefits is required

Lock the Gate recommends an independent review of the Cadence Economics July 2019 'Economic Impact Assessment of The Russell Vale Colliery'. It is not fit for purpose and cannot be relied upon to inform an accurate assessment of the costs and benefits of this project.

In April 2015, the Planning Assessment Commission requested an "independent analysis of the economic costs and benefits" of a previous iteration of this project proposal from the same proponent *before* final assessment and determination.²⁶ The Department subsequently engaged the Centre for International Economics (CIE) to undertake an independent review of the revised economic costs and benefits of the project, as requested by the Commission in its first review. CIE's review described the CBA as *"the primary tool to evaluate whether the project will deliver net benefits to society"*.²⁷ In reviewing CIE's report, the PAC found a great deal of uncertainty about net benefits of the project and arrived at a point where it was determined that royalties provide "a minimum threshold value against which the residual environmental, social and cultural costs of the project can be compared".²⁸

NSW DPIE's summary of net benefits

The NSW DPIE summarise the socio-economic benefits of this development as:

- employment of 205 people during operation and 22 during construction;
- \$35.3 million in capital investment;
- a net economic benefit of \$174 million (net present value) for the NSW community and \$17 million to the Wollongong local area through employment and expenditure;
 - direct benefits of the Revised UEP to NSW would be \$117 million (NPV) plus indirect benefits to NSW of \$57 million (NPV).
- royalty revenue to NSW (which WCL estimate at \$33.2M).

Claimed direct benefits are unreliable, exaggerated and require independent review

Cadence Economics claims the Project is predicted to generate \$116.9M in direct benefits.

\$38.5 million in promised corporate tax attributable to NSW will not be paid, which reduces this figure to \$78.4M. \$39.7M in net producer surplus has been attributed to NSW based on 34.5% of shareholders living in NSW, however WCL's 2020 Annual Report reveals that WCL

²⁶ NSW PAC, Russell Vale Colliery – Underground Expansion Project Review Report, Recommendation 2, pg 36, <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2014/12/russell-vale-colliery-underground-expansion-project-review/completed-review-report/russell-vale-review-report--main-volume.pdf>

²⁷ The Centre for International Economics, 2015, Review of CBA for Russell Vale extension, prepared for the Department of Planning and Environment p. 2

²⁸ NSW PAC, Russell Vale Colliery – Underground Expansion Project Review Report, Pg 21 <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2014/12/russell-vale-colliery-underground-expansion-project-review/completed-review-report/russell-vale-review-report--main-volume.pdf>

is about to cancel 75% of shares held by NSW shareholders in a legally-binding deal with a company called Bellpac Pty Ltd, reducing the net producer surplus attributable to NSW from \$39.7M to somewhere in the vicinity of about \$10M. We are now left with about \$48M (i.e., about 60% of claimed direct benefits have evaporated).

WCL estimates that the construction and ongoing operation of a reverse osmosis (RO) plant to treat 110 ML/year of water to a potable standard over a 10 period would cost around \$2.4 million.” This has been costed into the CBA, but NSW DPIE recognise that there may be a water treatment liability for this project in perpetuity. The cost of treating water for centuries has not been costed into the CBA.

Scope 1 and Scope 2 GHG emissions from Russell Vale may cost at least \$23.9M to abate. The Clean Energy Regulator conducted the 11th Emissions Reduction Fund auction on 9 and 10 September 2020. At the 11th auction, the average price per tonne of abatement purchased was \$15.74. If you multiply the average price per tonne of abatement x the 1,523,000 t CO₂-e of Scope 1 and 2 emissions that will be generated over 5 years, then the cost to taxpayers to abate these emissions - if the Emissions Reduction Fund were set the task - would be approximately **\$23,972,020**.

Subtracting those costs from the promised direct benefits, we’re left with a figure of about \$24M in direct benefits. At this stage of the analysis, about 80% of the direct benefits claimed in the economic assessment disappear. And we are yet to account for long-term water treatment costs and the unknown cost of surface water losses additional to those predicted, in the event that Dr Li’s worst case scenario arises and additional subsidence leads to a greater impact on drinking water. The value per ML of water lost to the catchment is a significant unknown. The PAC valued lost water from the last proposal by Wollongong Coal at replacement value of \$2276/ML. Using this figure, a potential cost of the estimated loss of water would have been “about \$22.1 million”.²⁹

In addition to all of the above, is the well-publicised gap of about \$202M in Russell Vale mine rehabilitation costs. To date, no one has been able to explain where this money will come from. In the highly likely event that WCL cannot afford this cost, the NSW tax payer will be left to foot the bill.

As discussed above, in reviewing the earlier longwall proposal, the PAC found a great deal of uncertainty about net benefits of the project and arrived at a point where it was determined that royalties provide “a minimum threshold value against which the residual environmental, social and cultural costs of the project can be compared”. In light of the evidence we present here, Lock the Gate’s view is that the likely costs of this development outweigh the direct benefits and therefore the project should be refused consent. At a minimum, the IPC should - like the PAC panel did five years ago - commission an independent analysis of the economics.

²⁹ NSW PAC, Russell Vale Second Review Report, 2016, pg 10

Overstated benefits

\$120.3M in corporate tax unlikely to be paid (including \$38.5M attributable to NSW)

The CBA claims a benefit to NSW of \$38.5M in corporate tax, but this tax will never be paid as this loss-making company will not generate taxable income. The balance of tax attributable to the Australian Government won't be paid either.

The project's CBA predicts a total corporate tax take of \$120.3 million in NPV terms for Australia, of which \$38.5 million is attributed to NSW.

About a third of the direct benefits to NSW - being the share of company tax payments that are attributable to NSW - will not be realised as WCL will not be paying any corporate tax. Therefore the \$38.5M in corporate tax has been factored into the CBA should be reduced to zero. Since JSPL became majority owner of WCL in 2013, zero corporate tax has been paid to the Australian Government (see Table 1 below).

"Consistent with the Guidelines, the company tax payments made to the Australian Government are levied on the estimated accounting profits generated by the UEP based in a company tax rate of 30 per cent. This is based on the assumption that all the profit generated by the UEP are subject to company tax in Australia (for example, ignoring financing costs)." [pg 15 Cadence Economics CBA]

Is Wollongong Coal 'debt-loading' as one strategy to reduce its taxable income to zero? This occurs where Australian businesses accept millions of dollars in loans from their overseas companies – often from tax havens – and the interest on these loans is siphoned out of the country tax free. The majority shareholder Jindal Steel and Power (Mauritius) Limited (JSPML) operates from a tax haven. JSPML has provided a Cash Advance Facility of \$550 million to WCL from which the company has drawn about \$449.5M (as at the date of publication of WCL's 2020 annual report in May 2020). \$62.4M in payments is due by 31 March 2021.

Table 1: Wollongong Coal - a loss-making business

Wollongong Coal has never made a profit since JSPL acquired a majority stake in 2013		
Financial Year	Profit / loss	Company tax paid
2014	(\$91,797,000)	-
2015	(\$195,567,000)	-
2016	(\$181,934,000)	-
2017	(\$5,511,000)	-
2018	(\$73,883,000)	-

2019	(\$379,230,600)	-
2020	(\$111,990,000)	-
Total losses over last 7 years	(\$1,039,912,600)	
Total company tax paid over last 7 years		\$0.00

Source: Annual Report data 2014 - 2020

Net producer surplus

Wollongong Coal and NSW DPIE claim that the net producer surplus of the UEP that will be attributable to NSW is \$39.7M. This is incorrect. Based on Cadence Economics' methodology, the maximum net producer surplus of the UEP that will be attributable to NSW is about \$10M, almost \$30M less than the amount claimed. The \$39.7M dollars in net producer surplus estimate is calculated based on information provided to Cadence Economics by WCL which claims that "35.4 percent of all shareholders are located within NSW" (pg 15 of the economic assessment). What the economic assessment fails to reveal is that just two shareholders hold 86.8% of all shares in the company: Jindal Steel & Power (Mauritius) Limited holds 60.38% and Bellpac Pty Ltd holds 26.39%.³⁰ WCL's 2020 Annual Report reveals that WCL is acquiring 100% of Bellpac's shares upon which the shares will be cancelled.

The 2020 Annual Report says that a legally-binding deal requires that Bellpac Pty Ltd will be bought out of the company by 10 December 2020 (just three days after the NSW IPC is due to make a final determination on this project). If 2,472,063,680 of Bellpac's shares out of a total of 9,367,425,843 WCL shares are cancelled, then it appears that JSPL Mauritius' stake in the company will grow to about 82%. With the largest NSW-based shareholder out of the picture, it is unclear what remaining percentage of shareholders are still based in NSW, but it is clear that it will be dramatically less than 35.4% (perhaps 9% or less).

Employment - jobs may not be sustained over 5 years

Employment may be created but there is a high risk that it won't be sustained given WCL's established inability to safely and profitably operate mines

Welcome as new jobs would be in the Illawarra during this current economic downturn, these workers would face an uncertain future if this project is approved.

In April 2019, Wollongong Coal announced it had shut down operations at its Wongawilli coal mine throwing 45 coal miners out of work after the NSW Resources Regulator identified "significant safety issues".³¹ ³² There have been many such issues over the last few years including a 'catastrophic failure' of a diesel engine at Wongawilli in 2017 which the Regulator

³⁰ Wollongong Coal Annual Report 2020, pg 104

³¹ SBS News, 10 April, 2019, <https://www.sbs.com.au/news/wollongong-coal-shuts-down-last-mine>

³² [NSW Resources Regulator's Chief Inspector shut down WCL's Wongawilli mine](#)

said could have caused an explosion in the methane-rich underground workplace.

Back in 2014, 100 miners lost their jobs at Wongawilli. The mine had been struggling since an expensive longwall mining machine used to extract coal was buried in a roof collapse. Workers were asked to take a pay cut to keep the mine going. But the company's offer of \$21.50 an hour combined with a loss of working conditions was voted down by miners at a union meeting. The miners were told to pick up redundancy packages and leave the site. At the time, a CFMEU organiser told the ABC that the cuts the company were seeking ran too deep and the conditional changes to the enterprise agreement was just unacceptable. "It got to the point where you say to yourself 'why would I work in the harshest conditions in the country', which certainly that's what that mine is when you can go downtown and get a job which pays more than what they were offering," he said. The job cuts come on top of 15 voluntary redundancies.³³

In summary, Wollongong Coal has been unable to operate their Wongawilli mine safely, with safety issues snowballing to the point where mining has now ceased at this location.

Understated costs

Cost of abatement to meet NSW 2030 GHG target not included in CBA

Scope 1 and Scope 2 GHG emissions from Russell Vale may cost at least \$23.9 to \$26.6M to abate

The Clean Energy Regulator conducted the 11th Emissions Reduction Fund auction on 9 and 10 September 2020. At the 11th auction, the average price per tonne of abatement purchased was \$15.74.³⁴

If you multiply the average price per tonne of abatement x the 1,523,000 t CO₂-e of Scope 1 and 2 emissions that the proponent says will be generated over 5 years, then the cost to taxpayers to abate these emissions - if the Emissions Reduction Fund were set the task - would be approximately \$23,972,020. This cost increases to \$26,640,705 when emissions are calculated using a GWP of 28.

Water treatment in perpetuity?

A perpetual loss of water from mine adits is likely. WCL estimates that (if required) the construction and ongoing operation of a reverse osmosis (RO) plant to treat 110 ML/year of water to a potable standard over a 10 period would cost around \$2.4 million." (pg 49, FAR)

Whilst the \$2.4 million has apparently been incorporated into the capital costs of the project, this only covers treatment for 10 years. There is no analysis in the materials before the

³³ ABC News, 29 May, 2014, 100 miners out of work as Wongawilli shuts down, Glencore announces 40 redundancies, <https://www.abc.net.au/news/2014-05-29/mine-job-cuts/5486492>

³⁴ 11th Emissions Reduction Fund auction results, 18 September 2020 <http://www.cleanenergyregulator.gov.au/ERF/Pages/News%20and%20updates/News-Item.aspx?ListId=19b4efbb-6f5d-4637-94c4-121c1f96fcfe&ItemId=837>

commission of the likely cost of treating this water in perpetuity. The Department states that “WCL is required to take direct responsibility for management and operational cost of the water treatment systems following mine closure” but only “for a reasonable period of time”.

Rehabilitation - an unfunded liability of \$202.7M

The elephant in the room is Wollongong Coal’s \$202.7M in unfunded “rehabilitation liabilities and business closure costs.”

NSW DPIE reports that the Resources Regulator “is now satisfied with the rehabilitation and mine closure strategy proposed by WCL”, however it has also confirmed that WCL’s “estimated rehabilitation liabilities and business closure costs” at Russell Vale are valued at \$215 million, against which the Resources Regulator holds a Security Deposit Requirement of \$12.3 million.

No strategic need for coal from this project

With zero risky mining by Wollongong Coal in our water catchment, Australia will still be the world’s largest exporter of metallurgical coal

In 2019, Australia exported 184M tonnes of metallurgical coal.³⁵ Total production from this project would be 3.67 Mt ROM coal, with 3.09 Mt of saleable product being 0.78 Mt of ROM coal and 2.31 Mt of coking coal over 5 years (2.31 Mt of coking coal production in total averages out at 0.46Mtpa).³⁶ The average annual proposed output of coking coal from Russell Vale would add only a quarter of 1% to Australia’s met coal exports (when compared to total export volumes in 2019 of 184Mt, 0.46Mtpa would increase export volumes by just 0.25%).

Wollongong Coal’s Wongawilli mine has not been producing coal since March 2019 and their other coking coal mine at Russell Vale has not produced coking coal since September 2015, and yet Jindal Steel & Power Limited (Jindal) - which is part of the largest steel group in India and holds a controlling interest in WCL - has still been able to produce steel. As NSW DPIE point out, about “76% of its metallurgical coking coal requirements are currently being sourced from Australia, primarily from mines in Queensland (including the Moranbah, Goonyella Riverside, Kestrel, Sonoma and Lake Vermont Coal Mines).” NSW DPIE suggest that the “proposed Revised UEP would contribute to Jindal’s objectives for a secure and stable supply of coking coal”, however no evidence has been provided that the current supply is not stable. Our conclusion therefore, is that coking coal from Russell Vale is not material to JSPL’s steel-making business. We also note that none of the coal at Russell Vale is required by Port Kembla Steelworks,

³⁵ Resources and Energy Quarterly, June 2020, <https://publications.industry.gov.au/publications/resourcesandenergyquarterlyjune2020/documents/Resources-and-Energy-Quarterly-June-2020.pdf>

³⁶ Cadence Economics, Economic Impact Assessment Of The Russell Vale Colliery, July 2019, pg 4

As discussed throughout this submission, the risks, costs and complexity of mining inside a Special Area of Sydney's drinking water catchment is significant. They are not worth it in order to supply a small amount of coal to steel makers which have proven their ability to source coal elsewhere.

Biodiversity

The project underlies groundwater-dependent ecosystems (GDEs) such as Coastal Upland Swamps in the Sydney Basin Bioregion. These swamps are listed as Endangered Ecological Communities (EECs) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and the New South Wales Threatened Species Conservation Act 1995 (TSC Act).

The IESC's key concerns about biodiversity are:

- changes to water regimes and irreversible changes in EPBC Act-listed swamps;
- impacts on in-stream and riparian environments and water-dependent flora and fauna, resulting from changes to flows and water regimes in streams and swamps as a result of pillar collapse.³⁷

The FAR identifies a risk that swamps may suffer "catastrophic loss" as a result of 850 mm of subsidence to be 10% (pg 41, FAR). In the absence of an independent review of subsidence risk, our assumption is that this risk may be greater than the information currently before the Commission suggests.

Longwall mining a 25M section of Longwall 6 and Swamp CCUS4

Draft consent condition A7 would allow longwall mining of approximately 25 m required to retrieve existing longwall mining equipment in Longwall 6 (LW 6). The first 340m of Longwall 6 was extracted between 5 May 2015 and 7 July 2015. According to the proponent, this mining has been previously assessed and approved under the existing Russell Vale East - LW6 (365m) Extraction Plan (Hanson Bailey, 2015c).

Longwall 6 has been the subject of a great deal of controversy in large part due to a high risk of significant impact to water resources and swamp CCUS4. It is worth quoting the Planning Assessment Commission's March 2016 Second Review Report for background on this issue. The PAC was so concerned about longwall mining here that their conclusion posed the question of "whether LW6 should be mined at all":

"In the circumstances here, there is significant doubt in any mitigation measures that could remediate the impact or be able to reduce the impact to an acceptable level. Any loss of water could be permanent and irreversible resulting in changes to the

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https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=MP09_0013%2120200915T070025.812%20GMT

composition and nature of the swamps with unknown long-term consequences. Any socio-economic benefits arising from the project must be balanced with the risk of water loss and associated impacts in the drinking water catchment area, which is a highly sensitive area.

In response to the Commission's question regarding options to avoid impacts to CCUS4, the proponent advised that the cost of avoiding 230m section of longwall 6 beneath CCSU6 would be \$10 million. No independent verification of the cost has been provided to the Commission. As discussed in the previous section of this report, the Commission's experts raised significant concerns about the potential cracking to surface at the eastern ends of LW6 and LW7 with a resulting potential loss of 10% of water flow in the Cataract Creek. This leads to the question of whether LW6 should be mined at all."

Swamp CCUS4 lies directly over Longwall 6 and - if further longwall mining is approved - may experience subsidence resulting in cracking of its bedrock and potentially the controlling rockbar. This could lead to drying of the swamp, which supports vegetation reliant on the perched water table. Localised impacts to the Giant Dragonfly could also result as the species is reliant on the perched water tables found in upland swamps.³⁸

Not a 'fit and proper' entity

Lock the Gate's assessment is that Wollongong Coal is not 'fit and proper' under the NSW Mining Act, the POEO Act and the EPBC Act.

The NSW Resources Regulator says the right to mine coal that belongs to the people of NSW is a "special privilege" which our community expects the government to regulate to "prevent harm to the community, other industries and the environment". The regulator's 'Fit And Proper Person Policy' requires that the right of exploration and mining is "only conducted by companies that can and will respect that privilege".³⁹

Wollongong Coal is majority-owned by a company facing criminal corruption charges in India, has not paid any corporate tax since 2013 and has put its Wongawilli mine in NSW into 'care and maintenance' (which means no coal is being mined) after the NSW Resources Regulator ruled it was not being operated safely. In addition, the company has close to or no income and debts which exceed its current assets by more than a billion dollars (AUD\$1,089,243,000). Current auditors UHY Haines Norton noted in March 2020 that "a material uncertainty exists that may cast significant doubt on the Group's ability to continue as a going concern and therefore, the Group may be unable to realise its assets and discharge its liabilities in the normal course of business." In March 2018, the NSW EPA stated that "in recent years" Wollongong Coal "has demonstrated they cannot consistently manage and maintain pollution control equipment and plant on site".

³⁸ *Planning Assessment Commission, March 2016, Second Review Report on the Russell Vale Underground Expansion Project, pg 18*

³⁹ NSW Resources Regulator, Fit And Proper Person Policy, June 2018, https://www.resourcesregulator.nsw.gov.au/__data/assets/pdf_file/0003/819237/Fit-and-proper-person-policy.pdf

Wollongong Coal has been fined and issued with orders by multiple agencies, regulators and courts for offences including polluting Bellambi Creek, “poor maintenance and operation” of infrastructure, failing to hold community consultative meetings and for stockpiling 200,000 tonnes of waste coal in breach of its development consent at Russell Vale. On 8 November 2017, a conviction was recorded in the Downing Centre Local Court for the failure of Wollongong Coal to pay annual rental fees and administrative levies under section 292C(3) of the Mining Act.

The company was subject to an investigation in NSW after the chief compliance officer of the NSW Resources Regulator approved a full review of Wollongong Coal's fitness to hold an authority to mine coal under section 380A of the Mining Act. In July 2020, the Illawarra Mercury reported that the state's mining regulator had “quietly shelved” this investigation, saying there was “insufficient evidence to support a finding that the company is not a fit and proper person”.

In India, the courts *have* determined that there is sufficient evidence for a criminal corruption case to be brought to trial against the majority owner of Wollongong Coal, Jindal Steel and Power (JSPL) and its chairman Naveen Jindal. In July 2019, Naveen Jindal and four other officials of his company - Jindal Steel and Power Limited (JSPL) - were charged under sections 420 (cheating) and 120-B (criminal conspiracy) of the Indian Penal Code. All have pleaded not guilty. JSPL, via a holding company, JSPL Mauritius, is majority shareholder in Wollongong Coal Ltd. Here's how former Minister for Resources - Don Harwin - has previously described JSPL's problems in India in response to a question in the NSW Parliament on 1 June 2017:

“On 29 April it was announced that Jindal Steel and Power Limited, and one of its directors had been investigated by India's Central Bureau of Investigation on potential criminal corruption charges. The courts in India decided that there was sufficient evidence for a case to be brought to trial. I am advised that no conviction of criminal corruption has been made at this stage.”

In summary, there are multiple causes for concern both in India and in NSW. Here in Australia, there are opportunities for different authorities to take action on fit and proper issues under the NSW POEO Act, the NSW Mining Act and the Commonwealth's EPBC Act. It appears that the NSW Resources Regulator - under the NSW Mining Act - may choose not to escalate action against Wollongong Coal unless convictions are recorded in India against significant individuals within JSPL. Regardless of what occurs in India, a review of the evidence already in the public domain here in NSW strongly suggests that Wollongong Coal does not meet the pub test of a 'fit and proper' coal miner and should not be granted further rights to mine in NSW.