2025 consultation

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Submission - Net Zero Commission Consultation - 4 July 2025

Thank you for the opportunity to make this submission to the Net Zero Commission's '2025 consultation'. Our submission details our concerns about emissions in the coal sector and recommendations for reform.

Lock the Gate is a national grassroots organisation made up of more than 240,000 supporters and around 140 local groups who are concerned about risky coal mining, coal seam gas and fracking. These groups are located in all parts of Australia and include farmers, First Nations Peoples, conservationists and urban residents.

KEY POINTS MADE IN THIS SUBMISSION

1. **The NSW Government is ignoring the IEA's advice that new coal projects are incompatible with the Paris Agreement temperature goals.**

   Since the International Energy Agency declared that no new coal projects can be developed anywhere in the world if we are to meet the Paris Agreement's 1.5 degree temperature goal, 9 new coal projects have been approved in NSW with a further 18 under assessment right now. When new projects are assessed, the full lifecycle emissions including downstream emissions are not being given sufficient weight in decision-making.

   Despite being in power for more than two years, the NSW Labor Government has failed to scrap John Barilaro's Strategic Statement on Coal which continues to invite coal-mine expansions by pledging to "*consider responsible applications to extend the life of current coal mines".*

   The same policy claims that "*reducing NSW thermal coal exports while there is still strong long-term global demand would likely have little or no impact on global carbon emissions".* The NSW Productivity and Equality Commission has challenged this assertion, finding in a recent paper that *"[l]imiting future NSW coal exports would be expected to raise the global price relative to otherwise, particularly for thermal coal"*. Their research has found that evidence *"is emerging that suggests global coal demand is becoming more responsive to changes in price …"*

2. **Coal-mine methane emissions in NSW should be cut by 75% this decade; instead they are projected to increase.**

a. NSW DCCEEW's latest analysis warns that fugitive emissions *"are projected to increase by 2030 due to increased mining activity"*

b. The NSW EPA has given tacit approval for new coal projects that will *increase* methane emissions despite claiming methane reductions are a *"priority"*

c. The short-term global warming potential of methane at 84-87 times the warming potential of carbon dioxide over 20 years is not being considered

d. The large-scale methane under-report from coal mines that has been identified by numerous studies is not being considered in coal expansion decisions.

3. **With as little as two years of carbon budget left, coal miners are trying to 'bank' high-emitting approvals now for projects that don't commence until well into the 2030's.**

4. **NSW DPHI continues to approve new coal projects that push the 2030 and 2035 targets further out of reach.**

   Since April 2025, with an abatement gap of 6.6 Mt CO2-e projected for 2030, NSW DPHI has approved new coal projects that will very likely be responsible for ~24% of the projected 2030 overshoot (see Table 2 below). If Dartbrook Mod 8 is approved (a decision is expected this month or next month), this will add to the difficulty of meeting the 2030 target.

   The case studies at Appendix 1 below examine the emissions profiles of the recently-approved Mt Arthur Mod 2, Tahmoor Mod 3 and Ulan Mod 6 projects and illustrates the dissonance between NZC advice and NSW DPHI decision-making.

   In summary:

   a. Mitigation is failing at existing mines

   b. The current regulatory system is not working to prevent major greenhouse gas emissions from coal mine expansions

   c. A history of high emissions and poor future prospects for GHG abatement are no barriers to coal-mine expansion approvals in NSW

   d. Coal miners and NSW DPHI are claiming offsets and SMCs as 'reductions' here in NSW, but NSW DCCEEW is not. NSW DCCEEW says (Methods paper 2024) "*there is no current way for NSW to track where offsets used to meet declining emissions baseline obligations were generated".*

   e. NSW DPHI's approach to assessing the economic impact of carbon emissions from new coal expansion is out of date and needs to be updated

based on NSW Treasury's 2024 TPG24-34: Carbon Emissions in the Investment Framework.

5. **Independent assessment of new coal projects would provide an opportunity to align coal-expansion determinations with NSW's climate policy settings.**

   To date, none of the six extensions determined under the current government have been referred to the NSW IPC, despite policy statements to the contrary (see point 17 below).

6. **There is an urgent need for frank and fearless advice from the NZC on coal.**

   There is a clear role for the Net Zero Commission to support and give further weight to the NSW Productivity and Equality Commission's robust and evidence-based advice. This advice includes:

   a) not approving coal-mine extensions *"could reduce mining emissions in the 2030s and 2040s markedly"*; and

   b) that the NSW Government considers setting a *"clear deadline for decommissioning thermal coal mining for export"*.

7. **NSW EPA reforms are providing cover for business as usual in the coal sector.**

   The NSW EPA's 'Guide for Large Emitters', together with other promised reforms (such as the CCMAPs) are meant to *"help NSW reach its legislated emissions reduction targets"*, but instead, they're providing cover for business as usual coal-mine expansions which are pushing legislated targets further out of reach.

RECOMMENDATIONS

The Net Zero Commission should exercise powers under the Climate Change (Net Zero Future) Act 2023 as follows:

1. Urgently use your functions under s15 1d) of the Act to provide a dedicated report on the risks posed by proposed coal expansions to NSW climate targets and outline the policy changes needed to address it, including putting forward a phase-down plan as proposed by the NSW Productivity Commission to prevent any further coal mine expansions.

2. Use your powers under s15 2g) of the Act to set stringent coal sectoral targets for 2030 and 2035 and mandate abatement requirements to reduce emissions from existing coal mines.

3. Use your powers under s15 3) of the Act to provide advice to the IPC on Moolarben and Hunter Valley Operations coal mine expansions to set a standard for greenhouse gas assessment that reflects the NZC's view on the risks posed by coal projects to

NSW.

4. Request that the NSW Government implements its own policy that *"[n]ew coal mine projects must be subject to an independent approval process".* In practice this would mean all new extension and expansion projects should be determined by the NSW IPC.

Recommendations re supporting economic diversification and transition in coal-affected regions:

5. The proposed Future Jobs and Investment Authorities fall far short of what is needed to deliver local and community-led statutory transition authorities with clear lines of authority direct to the Department of Premier and Cabinet and a revised approach is needed.

6. The Royalties for Rejuvenation Fund is being banked by the NSW Government until 2028 and should instead start to be deployed urgently so that concrete diversification projects can commence and communities are able to see the types of outcomes that are possible.

EXECUTIVE SUMMARY

The International Energy Agency - back in May 2021 - declared that no new oil, coal or gas projects can be developed anywhere in the world if we are to meet the Paris Agreement's 1.5 degree temperature goal. Since that declaration, 9 new coal projects have been approved in NSW (six under the current Labor government), with a further 18 under assessment right now. Mitigation at existing coal mines is largely failing, but this is no barrier to new coal expansions which, welcomed by NSW government policy, continue to emerge. The latest is a proposed 7-year extension at Narrabri Coal that entered the planning system just weeks ago.

Expert advice strongly advises that fossil fuel methane emissions in NSW should be cut by 75% this decade. Instead, NSW DCCEEW's latest analysis found they *"are projected to increase by 2030 due to increased mining activity."* NSW EPA - in its Guide for Large Emitters - claims that methane reductions are a priority *"[a]s methane warms the Earth much faster than carbon dioxide, reducing methane emissions is important for slowing the rate of atmospheric warming"*. Since the Guide for Large Emitters was finalised however, the NSW EPA has given tacit approval for new coal projects that will *increase* methane emissions.

Analysis by an international team of 60 leading climate scientists - published in June 2025 - warned that our planet's remaining carbon budget to meet the international target of 1.5C has just two years left at the current rate of emissions. Multiple projects are seeking approval now, for additional coal mining not scheduled to commence until well into the 2030's. Rix's Creek North Continuation Project seeks an extension from 2036 to 2049. Whitehaven Coal's EIS for a very significant expansion at Maules Creek is currently on exhibition. It is seeking approval *now* for an 11-year extension that would not begin until 2035.

More than a year ago, Minister Sharpe's Ministerial Statement advised that meeting NSW's legislated climate targets is *"essential for the future health and wellbeing of the people of NSW, our communities and our environment".* This was true in May 2024 and remains true today; but NSW DPHI continues to make decisions approving new coal projects that push the 2030 and 2035 targets further out of reach. Minister Sharpe recently described the NSW Net Zero Commission as a *"frank and fearless"* agency *"that is going to tell me lots of things that I probably do not really want to hear, but which we will have to take onboard as we move forward. I am quite serious."* We sincerely hope that the NZC accepts this invitation.

In writing this submission, Lock the Gate Alliance acknowledges NSW DCCEEW's recent update of NSW's GHG modelling on the Net Zero Emissions Dashboard and the publication of a '2024 Methods paper'. We also acknowledge Minister Sharpe's whole-of-government response to the Net Zero Commissions 2024 Annual Report. Whilst progress is undoubtedly being made - most notably in the electricity generation sector - our primary concern is that business as usual continues in the coal sector, cloaked in the guise of promised, but ineffective Scope 1 reforms and blind to the local and global consequences of endless and reckless expansion of coal supply.

Extension of NSW's coal exports is a global problem

We are alarmed by the NSW Government's ongoing willingness to extend and prolong coal exports from new projects as global average temperature continues to increase and climate change worsens. Six new coal projects have been approved since NSW Labor won office, with estimated total greenhouse emissions of ~343 million tonnes of CO2-e (lifetime) which equates to more than three times NSW's total annual emissions. Another 18 coal-mine expansions are currently being assessed by NSW DPHI (see Appendix 2 below). Another half dozen projects have been flagged but are not yet in the planning system.

It's unclear how many of the 18 coal expansions under assessment will be approved before the NSW Government reviews its policy on coal as no date has been set for the finalisation of the government's review. See Figure 1 below for new ROM coal approved since the Paris Agreement entered into force (blue) vs 18 proposed new coal-mine expansions as at 30 June 2025 (red).

Figure 1: ROM coal approved since Paris Agreement (blue) vs new coal expansions

Extension of NSW's coal mines threatens NSW's legislated GHG targets

The latest DCCEEW modelling projects NSW's emissions will amount to a 6.6 Mt CO2-e overshoot in 2030 and a much larger 11.6 Mt CO2-e overshoot in 2035 (see Table 1 below). Coal expansions approved in this term of government are not compatible with meeting legislated targets. The continued approval of new, high emitting coal projects will push these targets further out of reach.

Coal expansion projects approved by the Minns, Labor Government:

1. **Tahmoor Mod 3** was approved on 27 May 2025. If VAM abatement is not operating at Tahmoor by FY30, its Scope 1 emissions are projected to be 1,082,492 t CO2-e by FY30 (or 16% of the 2030 overshoot). EMM's December 2024 advice that NSW DPHI relied upon, stated in regard to VAM abatement, that *"Tahmoor Coal estimate the potential timing for such equipment would be in the late 2020's, depending on whether the process is technically and commercially viable."* In addition to the caveats about technical and commercial viability, there are also system safety issues that need to be resolved.

   Tahmoor's Scope 1 emissions increased by 9.3% in FY24 (~80% of which were methane).[1] If ACCUs purchased to offset emissions cannot be traced to NSW projects (which is the case right now) and VAM abatement is delayed until FY30 or later, SIMEC will not deliver any actual reductions in emissions by 2030. Indeed, they project their Scope 1 emissions will be about the same in FY30 as they reported in FY24.[2] Despite these unresolved uncertainties, NSW DPHI claimed - when they

[1] Tahmoor reported 1,084,992 t CO2-e to the Clean Energy Regulator in FY24. This was up 9.3% from 992,938 t CO2-e reported to the Clean Energy Regulator in FY23.
[2] SIMEC / EMM project Scope 1 to be 1,082,492 t CO2-e in 2030 (*SIMEC / EMM, Table 1 Annual emissions and Safeguard Mechanism reductions – Tahmoor Coal, 19 December 2024)*

approved the extension - that *"the Tahmoor South Project would maintain a similar emissions trajectory as for NSW"*. See Appendix 1 for more detailed analysis.

2. **Ulan Mod 6** was approved on 22 May 2025. The Project will add 20,824 t CO2-e of additional Scope 1 emissions to the projected 6.6 Mt CO2-e 2030 overshoot. It will also result in an additional 41.6 Mt CO2-e in Scope 3 emissions. Ulan has a GHG mitigation plan but it's not reducing Scope 1 emissions, which in FY24 were at a 5-yr high. See Appendix 1 for more detailed analysis.

3. **HVO Mod 8** was approved on 24 April 2025. This approval is a precursor to a massive proposed extension out to 2045. An amended project is expected to go on exhibition by around September 2025. If approved, this would generate more than 800 Mt CO2-e in lifetime emissions. It would also be responsible for 951,000 t CO2-e of Scope 1 emissions (or 14%) of the 6.6 Mt CO2-e 2030 overshoot and 932,000 t CO2-e of Scope 1 emissions (or 8%) of the 11.6 Mt CO2-e overshoot in 2035.

4. **Mt Arthur Mod 2** was approved 16 April 2025. On average, BHP is projecting an increase in combined Scope 1 and 2 emissions between now and when the mine is scheduled to close in FY30. Mt Arthur's Scope 1 emissions are currently at their highest level since the Safeguard Mechanism was introduced eight years ago. The recent approval is projected to result in a doubling of fugitive emissions. Despite this, NSW DPHI determined that the project is *"consistent with current NSW and Commonwealth policy settings".* See Appendix 1 for more detailed analysis.

5. **Boggabri Mod 8** was approved in January 2024. NSW DPHI claimed at the time that the extension from 2033 to 2036 was *"consistent"* with GHG policy settings. A few months later, updated modelling revealed that this decision was not compatible with meeting the 2035 GHG target. The indications are that Boggabri will remain a problem. There is no downward trajectory of emissions at the Boggabri coal mine to date. Their Scope 1 emissions in FY24 were at their highest level since the Safeguard Mechanism was introduced eight years ago in FY17. See Appendix 1 for more detailed analysis.

   Mod 10 - Increase to mine footprint and mine life is now under assessment. Idemitsu's 17 May 2024 Scoping Report for the project - seeks to extend mining by an additional four years out to 2040. Idemitsu does not anticipate any Scope 1 reductions at all between now and 2040. They describe the situation thus:

   > *"The Modification includes the continuation of mining operations utilising existing equipment and at rates consistent with those recently approved for MOD 8. Accordingly, it is considered that greenhouse gas emissions will likely remain consistent with those reported for the current operations at BCM, albeit for a further seven years beyond those approved for MOD 7 (including the three years approved by MOD 8)."* [3]

vs. the 1,084,992 t CO2-e that they reported to the Clean Energy Regulator in FY24.

[3] Boggabri Coal Mine Modification to SSD 09_0182 Scoping Letter 17 May 2024 for Boggabri Coal Operations Pty Ltd Page A-3

Table 1 **NSW emissions as inventoried (2005, 2022) and projected (2030, 2035, 2050) compared to NSW emissions reduction targets**

	NSW Greenhouse Inventory		Projected NSW emissions		
	2005	2022	2030	2035	2050
BAU (Mt CO_2-e)	152.7	110.0	87.1	70.7	40.0
Reduction below 2005		-27%	-43%	-54%	-74%
Current policy (Mt CO_2-e)	-	-	83.0	57.4	18.2
Reduction below 2005			-46%	-62%	-88%
NSW emissions reduction targets	-	-	76.4 50% below 2005 levels	45.8 70% below 2005 levels	Net zero emissions

Table 1 sourced from NSW DCCEEW's 2024 Methods Paper (published 26/06/25)

NSW EPA reforms look good on paper but have been ineffective thus far

The four projects below in Table 2 have all been assessed and approved since the NSW EPA introduced its Guide for Large Emitters in draft form in May 2024. The Guide is meant to "*help NSW reach its legislated emissions reduction targets.*" Instead, it appears to be providing cover for NSW DPHI to continue with business as usual, approving new, high-emitting projects now, with the promise of abatement that may never materialise from as yet unspecified and untested reforms further down the track.

So far, with an abatement gap of 6.6 Mt CO2-e projected for 2030, NSW DPHI has approved new coal projects that will very likely be responsible for ~24% of the projected 2030 overshoot. And there are more to come. A decision is likely to be made about Dartbrook Mod 8 by end July / early August 2025. If approved, this expansion will be responsible for 169,472 t CO2-e of the 6.6 Mt CO2-e overshoot in 2030.[4]

The Guide for Large Emitters promised reforms that should require proponents to:

- Set emissions reduction objectives that constitute material efforts to reduce emissions leading towards net zero by 2050
- Implement the mitigation hierarchy by first avoiding, then mitigating emissions and only using offsets for residual emissions that cannot be avoided or mitigated
- Describe in detail any offset strategy to offset residual emissions not avoided or reduced
- Arrange for an independent expert review of proposed mitigation prior to determination.

[4] Dartbrook Modification 8 Response to Submissions, 20 June 2025, Appendix B, Greenhouse Gas Assessment, Table 11 Estimated Scope 1, 2 and GHG Emissions – MOD8 (Unmitigated), pg 26

To date, proponents have almost completely evaded these requirements. NSW DPHI's decision-makers have approved their projects anyway, relying on promised future reforms to drive cuts in Scope 1 emissions to meet legislated targets. As we discuss in detailed case studies in Appendix 1 below however - particularly with regard to Tahmoor Mod 3 and Mt Arthur Mod 2 - a material cut in emissions is unlikely this decade. Additional Scope 1 emissions are being approved that won't be mitigated or avoided, but offset. As DCCEEW advised in its latest Methods paper, the surrender of ACCUs and SMCs are *"not accounted for in NSW's projections"* for reasons including because *"there is no current way for NSW to track where offsets used to meet declining emissions baseline obligations were generated"*.

Table 2: Coal-mine extensions approved by the Minns Government since April 2025 and the impact of NSW EPA's Guide for Large Emitters

Project	**2030 Scope 1 GHGs (t CO2-e)**	**Application of NSW EPA Guide for Large Emitters**		
		Interim & long-term GHG goals set?	**Independent review of mitigation plan?**	**Independent review of offsets?**
Mt Arthur Mod 2	451,577	X	X	X
HVO Mod 8	N/A	X	X	X
Ulan Coal Mod 6	20,824	X	X	X
Tahmoor MOD 3	1,082,492	X	X	X
Total	**1,554,893**			

Frank and fearless advice from the NSW Productivity and Equality Commission

The NSW Productivity and Equality Commission has clear advice for the NSW Government on coal-mine expansions. On 14 May 2025, they released their 2nd paper in their Net Zero series: Decarbonising buildings, industry, and waste:

> *"NSW Government emissions projections currently include some 'likely' coal mine extensions based on published proposals. Not approving these extensions could reduce mining emissions in the 2030s and 2040s markedly."*

In regard to Scope 3 export coal emissions, the Productivity Commission recommends that the NSW Government consider setting a *"clear deadline for decommissioning thermal coal mining for export"*.

There is a clear role for the Net Zero Commission to support and give further weight to the NSW Productivity and Equality Commission's robust and evidence-based advice.

NEW COAL PROJECTS THREATEN TARGETS

Points 1-5 below present a snapshot of the coal-expansion problem in NSW. They are not intended as a comprehensive analysis of all projects either currently in the NSW planning system or flagged as future proposals.

1. **The Net Zero Commission's advice about new high-emitting coal projects has to date been ignored by NSW DPHI**

   4 high-emitting coal-mine expansions have been approved by NSW Labor since the NZC's 2024 Annual Report warned that NSW is not on track to meet any of its legislated GHG targets and that coal-mine expansions are a key contributor to this problem. The case studies at Appendix 1 below examine the emissions profiles of Mt Arthur Mod 2, Tahmoor Mod 3 and Ulan Mod 6 and illustrate the dissonance between NZC advice and NSW DPHI decision-making.

2. **18 coal expansion projects are under assessment right now and another 6 projects may come forward in future**

   Another 18 coal-mine expansions are currently being assessed by NSW DPHI (see Appendix 2 below). Another half dozen projects have been flagged but are not yet in the planning system.

3. **About another six mine expansions - including Dartbrook Mod 8 - are likely to be approved before the government completes its review of coal policy**

   The Minns Labor government is still operating under the former government's 2020 pro-coal expansion Strategic Statement on Coal despite pledging more than a year ago that the Government's position on the future of coal mining in NSW would be reviewed against *"the NSW Government's net zero targets and emissions reduction policies."* There is no public timeline for the completion of this review.

   Coal-mine expansions likely to be determined by end December 2025:

   a. Dartbrook Mod 8
   b. Moolarben OC3
   c. Chain Valley
   d. Bloomfield Mod 5
   e. Invincible
   f. Cullen Valley

4. **Hunter Valley Operations Continuation Project**

   Yancoal and Glencore are proceeding with a very large proposed extension out to 2045. An amended project is expected to go on exhibition by around September 2025. If approved, this would generate more than 800 Mt CO2-e in lifetime emissions. It would also be responsible for 951,000 t CO2-e of Scope 1 emissions (or

14%) of the 6.6 Mt CO2-e 2030 overshoot and 932,000 t CO2-e of Scope 1 emissions (or 8%) of the 11.6 Mt CO2-e overshoot in 2035.[5]

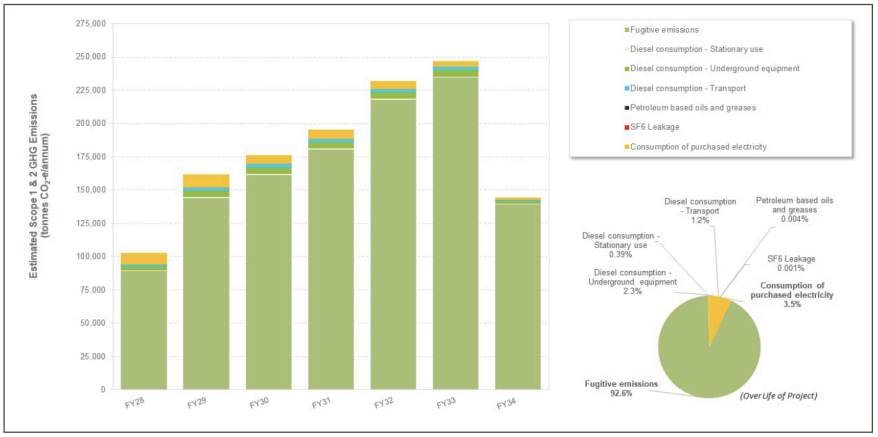
5. **Dartbrook Mod 8**

Dartbrook Mod 8 seeks to extend their mine from 2027 to 2033. A decision is likely to be made about this Project by end July / early August 2025. Scope 1 emissions at the current operation have increased for the last 3 yrs in a row and are projected to be significantly higher by FY33 than they are now.

In FY24, Dartbrook reported 97,921 t CO2-e in Scope 1 emissions.[6] The latest iteration of their expansion application (20 June 2025) projects 169,472 t CO2-e in Scope 1 emissions by 2030.[7] This means that their current projection is for a **73% increase in Scope 1 emissions by 2030**.

Despite the 6.6 Mt CO2-e abatement gap in 2030 and this Project's contribution to that, NSW DPHI are likely to approve this project in the next 4-6 weeks whilst claiming that the projected increase in Scope 1 emissions are 'consistent' with climate policy settings.

Figure 4 Estimated Annual Scope 1 and 2 GHG Emissions – MOD8 (Unmitigated)



Source: Figure 4 is sourced from Dartbrook Modification 8 Response to Submissions, 20 June 2025, Appendix B, Greenhouse Gas Assessment, pg 25

[5] HVO correspondence re EPBC assessment, April 2025. HVOCP – Preliminary Analysis of Greenhouse Gas Impacts (HVO North and HVO South).pdf (792 KB)
[6] Dartbrook Annual Review 2024 | 31 March 2025, pg 36
[7] Dartbrook Modification 8 Response to Submissions, 20 June 2025, Appendix B, Greenhouse Gas Assessment, Table 11 Estimated Scope 1, 2 and GHG Emissions – MOD8 (Unmitigated), pg 26

METHANE REDUCTIONS ARE URGENT

6. **A 75% cut in fossil fuel methane emissions is required by 2030, but here in NSW they are projected to increase.**

   NSW DCCEEW - in their 2024 Methods paper - found that fugitive emissions from fuels in NSW *"are projected to increase by 2030 due to increased mining activity."*[8]

   The IEA reiterated in their latest Global Methane Tracker 2025 report that *"rapid and sustained reductions in methane emissions are essential for limiting global warming"*. The International Energy Agency's analysis is that the fossil fuel sector *"offers the greatest potential for immediate reductions in methane emissions"*. In regard to how this is tracking in the real world though the IEA observed that while *"[m]any actors have set targets for lowering methane emissions by 2030"* so far *"few countries or companies have formulated real implementation plans for these commitments, and even fewer have demonstrated verifiable emissions reductions."*

   Newly released analysis from Climate Resource[9] (May 2025) found that a minimum 75% reduction in methane emissions from energy in Australia by 2030 is consistent with cost-effective global action to limit warming in line with the Paris Agreement temperature goal. In their analysis, Australia's methane emissions from energy need to decline rapidly, by around 80% to 75% in 2030 relative to 2020 under peak warming of 1.6° and 1.8°C respectively, and 95% to 75% by 2035.

7. **The NSW EPA has given tacit approval for new coal projects that will *increase* methane emissions despite claiming methane reductions are a "priority".**

   Mt Arthur Mod 2 was not opposed by the NSW EPA despite BHP's projections that fugitive emissions will more than double. Further compounding this problem, we note ClimateTRACE estimates that fugitive emissions may be *"five times higher for Mount Arthur"* than reported.[10]

   A further extension of mining at Tahmoor (Mod 3) was also given tacit approval by the NSW EPA. About 81% of Tahmoor's Scope 1 emissions in FY24 were methane.[11] Absent adoption of VAM abatement by 2030 (which seems shaky at best at the time of writing this submission), SIMEC will rely on ACCUs and SMCs to 'offset' emissions. Neither the surrender of SMCs nor the purchase of ACCUs by SIMEC will result in the drawdown of any of SIMEC's methane emissions from the atmosphere (offset projects focus on the drawdown of carbon dioxide not methane). Significant actual reductions in methane emissions beyond BAU depend largely on the viability of VAM abatement, which has not been required as a condition of consent.

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[8] NSW DCCEEW, 2024 Methods paper, NSW greenhouse gas emissions projections 2024, pg 18
[9] Climate Resource, Rebecca Burdon, Jared Lewis & Karla Spiller, May 2025, Australian methane targets consistent with the Paris Agreement temperature goal - Insights from integrated assessment models
[10] IEEFA, METHANE: A ticking time bomb for Australian investors, March 2025
[11] See Clean Energy Regulator's 2023-24 Baselines and emissions table (46.8 KB XLSX) available here: https://cer.gov.au/markets/reports-and-data/safeguard-data/2023-24-baselines-and-emissions-data

The pattern of tacit approval from the NSW EPA looks set to continue with the looming decision on Dartbrook Mod 8 (due July / August 2025). According to the Proponent, *"just under 95%"* of the total Scope 1 emissions associated with the proposed MOD 8 operations are fugitive CO2 and CH4 emissions from the underground mine. Dartbrook has applied for a grant from the NSW Net Zero Industry and Innovation Program to conduct feasibility studies into the implementation of a VAMMIT / VAMCAT (or similar) unit at Dartbrook Mine. In June 20205 they warned that *"[a]t this preliminary stage, it cannot be assumed that VAMMIT / VAMCAT will be available for MOD8 and this measure is only discussed as a future opportunity for further mitigation."* [12]

With VAM abatement uncertain and/or unlikely, Dartbrook is seeking approval to emit additional Scope 1 emissions, which would increase the size of the current 6.6 Mt CO2-e gap by 169,472 t CO2-e in 2030.[13] Given recent decisions by NSW DPHI on similar projects, it appears more likely than not that this project will be approved. We note that civil society actors will not be able to scrutinise the justification for an approval prior to determination as this project will not go to the NSW IPC. This is despite government policy that *"[n]ew coal mine projects must be subject to an independent approval process"* (see point 17 below).

We note that an earlier 5-year expansion proposal at Dartbrook - that did go to the NSW IPC back in 2019 - was refused, partly on climate grounds. At the time, the NSW IPC criticised the mine's management of GHGs. They found - at point 132 - that "*the Proposed Modification is out of step with contemporary international and domestic policy, the current regulatory environment for GHG emissions and community expectations …"*

8. **The short-term global warming potential of methane at 84-87 times the warming potential of carbon dioxide over 20 years is not being considered.**

   Methane is a vastly more powerful warming agent than carbon dioxide over 20 years, but that fact is not considered in the NSW assessment process. Instead, methane emissions are converted to greenhouse gas emissions using a 100-year global warming potential, which dramatically underestimates the climate impact over the short term. It is inappropriate to use the 100 year global warming potential for methane when the key considerations are impacts over the coming 10 years to 2035 on NSW climate targets. The short term GWP should be used to properly quantify the short-term emissions and properly assess the near term risk of exceeding near term global tipping points.

9. **The large scale methane under-report from coal mines that has been identified by numerous studies is not being considered in coal expansion decisions.**

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[12] Dartbrook Modification 8 Response to Submissions, 20 June 2025, Appendix B, Greenhouse Gas Assessment, Table 11 Estimated Scope 1, 2 and GHG Emissions – MOD8 (Unmitigated), pg 37
[13] Dartbrook Modification 8 Response to Submissions, 20 June 2025, Appendix B, Greenhouse Gas Assessment, Table 11 Estimated Scope 1, 2 and GHG Emissions – MOD8 (Unmitigated), pg 26

Numerous studies have found that methane emissions are likely to be at least double the amount reported by coal companies, but that fact is not considered in the assessment process and coal company figures are accepted as a valid estimate of emissions. The Common Capital report - 'Unlocking cost-effective methane abatement in the NSW and QLD coal industry' - found that methane emissions from coal could increase by 75% by 2035 in NSW, despite the International Energy Agency saying they must reduce by 75% by 2030.

The methane under-report is a serious issue that should trigger the precautionary principle.

REGULATORY SYSTEM IN NSW IS NOT 'FIT FOR PURPOSE'

10. Mitigation is failing at existing mines

Data published by the Clean Energy Regulator in April 2025 confirms that GHG mitigation at operating, high-emitting coal mines in NSW is failing. More than 60% of the 26 coal mines in NSW regulated by the Safeguard Mechanism increased their Scope 1 emissions in FY24 (including 6 of the 10 highest emitters).

11. The current regulatory system is not working to prevent major greenhouse gas emissions from coal mine expansions.

The EPA has developed a Large Emitters Guide but it is not binding and key elements have not been implemented in recent coal mine decisions – including the Mt Arthur Mod 2 and HVO Mod 8 decisions. Proponents have not been required to reduce emissions on the same trajectory as NSW nor to set emission reduction objectives.

Furthermore, coal companies are applying for projects that do not even commence until after 2030, but the NSW Government is progressing them through the planning system regardless – ie the Maules Creek coal expansion does not commence until 2035 but an EIS is already on exhibition. This enables companies to 'bank' approvals that will require vast compensation if they have to be stopped in the future on climate grounds.

Lastly, it is clear that the Safeguard Mechanism has failed to lead to any genuine emissions reduction from coal projects in NSW. A recent report by Common Capital found, shockingly, that "*BHP, Glencore, Stanmore Resources and Whitehaven are projected to earn Safeguard Mechanism Credits for every tonne of coal produced until 2050, as their baselines are, on average, set significantly above current emissions intensity".* This effectively means that these miners are earning credits for doing nothing on emissions reduction under the Safeguard Mechanism, right out until 2050.

We note recent analysis from Common Capital that the *"Safeguard Mechanism is*

likely to drive emissions reductions but not in time to meet NSW's 2030 and 2035 targets …" [14]

12. **A history of high emissions and poor future prospects for GHG abatement are no barriers to coal-mine expansion approvals in NSW.**

    Three of the six mine expansions approved since NSW Labor took office reported their highest Scope 1 emissions in FY24 since the Safeguard Mechanism took effect in FY17. These mines are Mt Arthur, Boggabri and HVO.

13. **Coal miners and NSW DPHI are claiming offsets and SMCs as 'reductions' here in NSW, but NSW DCCEEW is not counting these in emissions projections**

    Many mine operators are placing a heavy reliance on offsets over mitigation. For example, Whitehaven Coal stated in their Sustainability Report 2024 that they *"expect to continue to rely on carbon credits to meet our Safeguard Mechanism obligations for the foreseeable future"*. Whitehaven says that *"[s]uitable technology solutions are not currently available or financially feasible to sufficiently mitigate the emission reductions required under the scheme to meet our Safeguard emissions intensity baselines."* Against this backdrop, the company has produced an EIS for a major expansion at their Maules Creek mine.

    We note that the carbon credits Whitehaven is referring to - Australian carbon credit units and Safeguard Mechanism credit units - are: a) meant to be last resorts; and b) may not offset emissions accruing to the NSW GHG inventory. The NSW EPA's Guide for Large Emitters makes the following important points about carbon offsets:

    - "*Carbon offsets must be used only for residual emissions that cannot be avoided or reduced."*
    - *"offsets outside NSW do not currently count towards the NSW emissions reduction inventory."*
    - *"It is important to note that SMCs are not carbon offsets, as stated on the Clean Energy Regulator's webpage."*

    Further, we note the Net Zero Commission's reservations (April 2025 Consultation paper) about the impact of the Safeguard Mechanism, ie that while it *"has started to provide incentives to reduce facility-level emissions … [t]he extent to which it will drive decarbonisation in resources industries is not yet known."*

    NSW DCCEEW's 2024 Methods paper, released 26 June 2025, provides further evidence that offsets are not fit for purpose. Commenting on the proportion of emissions reductions that cannot be met by avoiding or mitigating, they advised that the surrendering ACCUs or SMCs is not accounted for in NSW's projections because:

[14] Common Capital, Unlocking cost-effective methane abatement in the NSW and QLD coal industry - April 2025, pg 36

- *NSW's net emissions, for the purposes of tracking to targets, are calculated by determining the amount of direct emissions attributable to the state, including any anthropogenic emission removals due to activities in the state*
- *there is no current way for NSW to track where offsets used to meet declining emissions baseline obligations were generated*
- *there is no current framework or agreement for the transfer of mitigation outcomes between Australian jurisdictions and the corresponding adjustment to state accounts.*

14. **NSW DPHI's approach to assessing the economic impact of carbon emissions from new and modified coal and gas development proposals in NSW is out of date, no longer fit for purpose and needs to be updated based on NSW Treasury's 2024 TPG24-34: *Carbon Emissions in the Investment Framework*.**

    NSW DPHI's website currently directs proponents of coal and gas mining developments to assess projects using the 2015 document *Guidelines for the Economic Assessment of Mining and Coal Seam Gas Proposals*.[15] This document requires a proponent to undertake a CBA on its project which estimates, among other things, the cost impact on NSW of the project's 'greenhouse gas emissions'.[16] It directs the proponent to use a separate 'Technical Notes' document in order to 'identify and quantify' these impacts.[17] Such a *Technical Notes* document was published in 2018 and contains some more detailed, but now very outdated, guidance by which a proponent must assess the impact of the expected carbon emissions of its project.[18] This document states that it will be 'subject to ongoing review to ensure consistency with contemporary Government legislation, policies, and guidelines', but this has clearly not occurred.[19]

    The Department continues to require proponents to assess carbon costs using outdated guidelines that are now grossly inconsistent with government policy, and which need urgently to be replaced. These guidelines fail to reflect (as they pre-date) the legislated 'net zero' carbon emissions trajectories for both NSW and the Commonwealth; and recent NSW Treasury policy which prescribes a more robust framework for the valuation of carbon emissions. The NSW Treasury document 'presents the carbon values that NSW Government agencies must use when valuing carbon emission impacts in cost-benefit analysis (CBA)'.[20]

    We ask that the NZC recommend that NSW DPHI:

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15 NSW Government, *Key Guidance: Economic Impact* <https://www.planningportal.nsw.gov.au/major-projects/assessment/policies-and-guidelines/key-guidance/economic>

16 NSW Government (2015), *Guidelines for the Economic Assessment of Mining and Coal Seam Gas Proposals* ('Guidelines'), 15-16.

17 Guidelines (n 3) 16.

18 NSW Department of Planning and Environment (2018), *Technical Notes supporting the Guidelines for the Economic Assessment of Mining and Coal Seam Gas Proposals* ('Technical Notes'), 43-49.

19 Technical Notes (n 5) 44.

20 NSW Treasury (2024), TPG24-34: *Carbon Emissions in the Investment Framework* ('Treasury'), 1.

1. Urgently update the Department's guidelines for the economic assessment of mining and gas projects to ensure they reflect:
    a) the legislated 'net zero' by 2050 carbon emissions trajectories of both the Commonwealth and NSW, and
    b) NSW Treasury policy on valuing the impact of carbon emissions.
2. Require, in the interim, that all proponents of new or modified coal and gas developments conduct a CBA on their projects using the current NSW Treasury carbon valuation policy.

SCOPE 3 EMISSIONS

15. The full lifecycle emissions including downstream emissions are not being given sufficient weight in decision-making.

Lock the Gate's analysis of proposed coal expansions shows that as at 30 June 2025, there are 18 new coal projects in the planning system (with another 6 identified which may bring expansion proposals forward in future) that would produce more than 1.7 billion tonnes of lifecycle emissions, which represents more than 15 times NSW current annual emissions. Given the purpose of the *Climate Change (Net Zero Future) Act 2023* includes limiting global temperatures to as near as possible to 1.5 degrees, the downstream emissions must be fully assessed - and given their scale - should provide another reason why coal expansions must be rejected.

When approving new coal expansions, NSW DPHI makes no reference to UNEP's emissions gap and pretends that as long as coal is sold to countries that have signed the Paris Agreement, additional Scope 3 emissions from new coal expansion approvals will be *"consistent"* with Paris Agreement goals. For example, NSW DPHI approved Ulan Mod 6 on 22 May 2025. In their Assessment Report, the department acknowledged that the consideration of downstream (Scope 3) emissions is a requirement of State Environmental Planning Policy (Resources and Energy) 2021. They then summarised emissions reductions initiatives in key countries the coal would likely be exported to, being China, Japan, South Korea and Taiwan. Having done that, they found that the *"degree to which these countries are on track to meet these targets is variable and somewhat uncertain ...."*, but then approved the expansion Project anyway.[21] Additional Scope 3 emissions were justified by stating that *"[m]ost countries receiving coal from the complex are party to the Paris Agreement and all have commitments in place to reduce emissions by 2050".*

In regard to coal-export Scope 3 emissions from new projects, we draw the Net Zero Commission's attention to Box 9 of the NSW Productivity and Equality Commission's 2nd net zero paper which found that there is *"evidence that suggests global coal demand is becoming more responsive to changes in price"*. Their paper suggests

[21] NSW DPHI, Modification 6 of Ulan Continued Operations Project (MP08_0184-Mod-6) Assessment Report | pg 42

that limiting supply may raise the global price, which would, in turn, potentially result in a reduction of global emissions from coal.

> "*Limiting future NSW coal exports would be expected to raise the global price relative to otherwise, particularly for thermal coal. Coal importers would respond with a combination of:*
>
> - *reducing coal-generated energy demand, lowering emissions*
> - *accelerating their switch to low- and zero-emissions energy sources like firmed renewables, replacing coal-fired electricity and lowering emissions*
> - *boosting local production or purchasing coal from alternative suppliers— potentially, but not necessarily, increasing emissions.*
>
> *All things being equal, reducing NSW coal exports will only result in a net increase in global emissions if the third effect is stronger than the combination of the first two. Evidence is emerging that suggests global coal demand is becoming more responsive to changes in price (Huntington, Barrios, & Arora, 2019), particularly in China (Burke & Liao, 2015). This is because of an increasing array of alternative energy sources. Markets can switch not only to longstanding alternatives like nuclear and natural gas, but increasingly to renewables and storage, which are becoming cheaper over time."*

16. **NSW Productivity and Equality Commission is advocating that the NSW Government consider *"preventing new mine approvals"* and/or setting a *"clear deadline for decommissioning thermal coal mining for export"*.**

    On 14 May 2025, the NSW Productivity and Equality Commission published their 2nd paper in their Net Zero series: Decarbonising buildings, industry, and waste.

    a) In regard to aligning the future of coal in NSW with net zero, the report looks at different approaches to how this might be achieved. One approach they recommended for consideration is to:

    > *"consider preventing new mine approvals or ensuring stringent abatement requirements as set out in the draft Climate Change Assessment Requirements and Guide (EPA, 2024). If such a decision were taken, development consents would provide a predictable pathway for reducing fugitive emissions from coal operations (Figure 10). By 2040, output will have fallen by more than 85 per cent. By 2048, all current licences are set to have expired."*

    The Productivity Commission advised that not approving coal-mine expansions *"could reduce mining emissions in the 2030s and 2040s markedly."*

Another proposal from the Commission In regard to aligning the future of coal in NSW with net zero was to *"give a clear deadline for decommissioning thermal coal mining for export."*

NEW COAL PROJECTS SHOULD BE ASSESSED INDEPENDENTLY

17. The NSW Government was elected promising independent assessment of new coal projects. So far, six projects have been assessed, none of them independently by the NSW Independent Planning Commission.

Prior to the election, NSW Labor promised that *"[n]ew coal mine projects must be subject to an independent approval process"*.[22] Since the election, this commitment has been reiterated by Minister Houssos, who told Budget Estimates on 2 Nov 2023 that *"[f]rom a whole-of-government approach, we would say that we support an independent assessment of planning of all resources projects. In relation to any expansion of existing coal mines or new coal mines, they would have to go through that independent process …"*

More recently, this position was again stated by NSW Minister for Planning Paul Scully, who claimed - in correspondence dated 29 May 2025 - that *"resource proposals are all assessed by the Independent Planning Commission (IPC) and its public meeting and hearing processes provide an additional opportunity for the community and other stakeholders to provide submissions and other feedback during its assessment process"*.

NSW Government policy clearly supports independent assessment of coal projects, however an overwhelming majority of new projects are being assessed and determined in-house by NSW DPHI as modifications. Therefore, until such time as new projects are assessed independently, we think there is a role for the Net Zero Commission: a) to provide advice about the compatibility of key coal-expansions projects with meeting legislated targets; and b) to recommend that the NSW Government change its policy regarding modifications that approve new coal for mining. Accordingly, we recommend that the Commission:

- exercise its powers under s15 3) of the Act to provide advice to the IPC on Moolarben and Hunter Valley Operations coal mine expansions to set a standard for greenhouse gas assessment that reflects the NZC's view on the risks posed by coal projects to NSW. Where uncertainty exists - particularly in relation to methane under-reporting and estimation - we believe the Commission should provide advice that can then set a standard and benchmark going forward for how such issues should be assessed.

[22] Written policy platform response to Lock the Gate from NSW Labor, March 2023 'Survey Response - Lock The Gate - March 2023'

- write to Minister Scully to advise that meeting legislated targets is currently being compromised by a failure of government to assess new coal projects (categorised as modifications) via the pathway promised.

APPENDICES

Appendix 1 - A short history of recent coal-mine expansion approvals in NSW indicates NSW planning decisions are exacerbating NSW's GHG emissions problems

Boggabri Mod 8

In January 2024, NSW DPHI approved an extension from 2033 to 2036 promising that this decision was *"consistent"* with GHG policy settings. A few months later, updated modelling revealed that this decision was not compatible with meeting the 2035 GHG target.

In FY24, Scope 1 emissions increased at Boggabri to their highest level since the Safeguard Mechanism was introduced. They are projected to increase further out to 2030. Idemitsu's May 2024 Scoping Report for their proposed Mod 10 project (four-year extension to 2040) does not anticipate any Scope 1 reductions between now and 2040. This is clearly not aligned with the goals and objectives of The Climate Change (Net Zero Future) Act 2023.

Boggabri Mod 8 was approved by NSW DPHI on 22 January 2024. At the time, NSW DPHI asserted that even though direct GHG emissions from Boggabri would increase as a result of approval of this Project, that was acceptable partly because NSW would still meet 2030 and 2035 GHG reduction targets.

> *"The Department notes the advice from NZEM that the predicted GHG emissions from the modification are already included in the forecast modelling against these targets. The Department considers that the modification is consistent with current NSW and Commonwealth policy settings in regard to GHG emissions."* [23]

The decision approved an additional 790,000 t CO2-e in Scope 1 emissions between 2033 and 2036. About 12 weeks after this mine expansion was approved, the Net Zero Emissions modelling was updated (on 18 April 2024) by NSW DCCEEW. This update revealed that Boggabri Mod 8's Scope 1 emissions were not consistent with meeting targets, including the 2035 target. Instead, they were contributing ~70,000 t CO2-e to a 7.8 Mt CO2-e overshoot in 2035. If Mod 10 is approved, Idemitsu Australia predicts that Boggabri's contribution to the 7.8 Mt CO2-e overshoot in 2035 will increase threefold from ~70,000 t CO2-e in 2035 to ~210,000 t CO2-e in 2035 (with Mod 10).[24]

The indications are that Boggabri will remain a problem. There is no downward trajectory of emissions at the Boggabri coal mine to date. Their Scope 1 emissions in FY24 were at their highest level since the Safeguard Mechanism was introduced eight years ago in FY17 (see Table 1 below).

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[23] NSW DPHI, Assessment Report for Boggabri Mod 8, Jan 2024
[24] See Table 21 Estimated GHG emissions, pg 56, Appendix E, Boggabri Coal mine Modification 10, Air Quality and Greenhouse Gas Assessment, 23 May 2025.

Table 1: Boggabri Coal Scope 1 emissions (t CO2-e) - FY17 to FY24

	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Boggabri Coal	183,750	177,065	203,082	174,391	184,492	177,437	192,864	210,390

Data: Clean Energy Regulator, Safeguard facility covered emissions data

In regard to projections of future emissions, Idemitsu's July 2023 update to its GHG assessment for its Boggabri Mod 8 project predicted that Scope 1 emissions would **increase** and remain elevated for about the next decade. In regard to the impact of this mine's emissions in regard to meeting the state's 2030 emissions target, Idemitsu's consultants - James Bailey and Associates - projected that Boggabri's Scope 1 emissions will be ~20,000 t CO2-e higher in 2030 than reported in FY24.[25] 'Table 21 Estimated GHG emissions' for the Mod 10 expansion, predicts that Boggabri's Scope 1 emissions - with Mod 10 - would increase by ~30,000 t CO2-e in 2030 (from 210,390 t CO2-e reported in FY24, to 240,000 t CO2-e in 2030).

[25] See letter from James Bailey and Associates to NSW DPE, 7 July 2023, 'Table 3 Estimated greenhouse gas emissions using revised electricity usage and the DCCEEW projections of electricity emission factors'

Table 21 Estimated GHG emissions

Year	Annual emission (Mt CO_2-e)											
	BCM (with MOD 7) Original development			BCM (with MOD 8) Business as usual			BCM (with MOD 10) Modified development			Increment of MOD 10 (Project only)		
	Scope 1	Scope 2	Scope 3	Scope 1	Scope 2	Scope 3	Scope 1	Scope 2	Scope 3	Scope 1	Scope 2	Scope 3
2025	0.23	0.07	20.8	0.23	0.01	20.3	0.23	0.01	18.2	0.01	0.00	-2.1
2026	0.24	0.07	20.8	0.24	0.01	21.1	0.22	0.01	20.3	-0.01	0.00	-0.7
2027	0.27	0.07	20.8	0.26	0.01	20.4	0.21	0.01	19.9	-0.05	0.00	-0.5
2028	0.21	0.07	18.8	0.23	0.01	19.5	0.24	0.01	19.5	0.01	0.00	-0.1
2029	0.15	0.05	13.8	0.23	0.01	20.6	0.24	0.01	19.6	0.00	0.00	-1.0
2030	0.11	0.04	10.5	0.23	0.00	20.2	0.24	0.00	19.4	0.02	0.00	-0.8
2031	0.14	0.04	12.8	0.23	0.00	20.3	0.22	0.00	19.1	-0.01	0.00	-1.2
2032	0.11	0.04	9.6	0.22	0.00	17.1	0.23	0.00	19.7	0.01	0.00	2.6
2033	0.08	0.03	8.7	0.21	0.00	16.7	0.22	0.00	19.5	0.01	0.00	2.8
2034	-	-	-	0.19	0.00	15.0	0.22	0.00	19.6	0.04	0.00	4.5
2035	-	-	-	0.07	0.00	8.6	0.21	0.00	18.4	0.13	0.00	9.7
2036	-	-	-	-	-	-	0.21	0.00	17.7	0.21	0.00	17.7
2037	-	-	-	-	-	-	0.16	0.00	13.9	0.16	0.00	13.9
2038	-	-	-	-	-	-	0.15	0.00	13.8	0.15	0.00	13.8
2039	-	-	-	-	-	-	0.08	0.00	5.9	0.08	0.00	5.9
2040	-	-	-	-	-	-	0.02	0.00	3.6	0.02	0.00	3.6
Maximum	**0.27**	**0.07**	**20.80**	**0.26**	**0.01**	**21.09**	**0.24**	**0.01**	**20.35**	**0.21**	**0.00**	**17.75**
Average	**0.17**	**0.05**	**15.18**	**0.21**	**0.00**	**18.18**	**0.19**	**0.00**	**16.75**	**0.05**	**0.00**	**4.25**
Total	**1.54**	**0.48**	**136.60**	**2.33**	**0.05**	**200.00**	**3.10**	**0.06**	**268.05**	**0.77**	**0.00**	**68.05**

Idemitsu's 17 May 2024 Scoping Report for their proposed 'Mod 10 - Increase to mine footprint and mine life' project - which seeks to extend mining by an additional four years out to 2040 - does not anticipate any Scope 1 reductions at all between now and 2040. They stated that:

> *"The Modification includes the continuation of mining operations utilising existing equipment and at rates consistent with those recently approved for MOD 8.*
>
> *Accordingly, it is considered that greenhouse gas emissions will likely remain consistent with those reported for the current operations at BCM, albeit for a further seven years beyond those approved for MOD 7 (including the three years approved by MOD 8)."* [26]

Mt Arthur Mod 2

Mt Arthur's Scope 1 emissions are at their highest level since the Safeguard Mechanism was introduced. BHP is projecting further increases in Scope 1 emissions out to FY29, tapering off only in FY30 as the mine approaches its scheduled closure. Even in FY30, Mt Arthur's Scope 1 emissions will still contribute 451,577 to CO2-e to an 6.6 Mt CO2-e emissions overshoot in FY30 under the latest modelling (published 26/06/25). Fugitive emissions are projected to more than double. Despite projected increases, NSW DPHI determined that the

[26] Boggabri Coal Mine Modification to SSD 09_0182 Scoping Letter 17 May 2024 for Boggabri Coal Operations Pty Ltd Page A-3

project is *"consistent with current NSW and Commonwealth policy settings"*.

Mt Arthur Mod 2 was approved by NSW DPHI on 16 April 2025. The decision approved an additional 2,490,354 t CO2-e in Scope 1 emissions between FY26 and FY30. This decision was made just one week after the Net Zero Commission reiterated *"concern at the risks to the state's targets from increased emissions from the resources sector through proposals to extend and expand existing NSW coal mines."* [27]

Mt Arthur's Scope 1 emissions are currently at their highest level since the Safeguard Mechanism was introduced eight years ago (see Table 2 below). Scope 1 GHGs increased by 12.5% from 528,632 t CO2-e in FY23 to 594,767 t CO2-e in FY24.

Table 2: Mt Arthur Scope 1 GHGs (t CO2-e) - FY17 to FY24

	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Mt Arthur	460,897	448,693	533,444	538,610	546,521	503,403	528,632	594,767

Data: Clean Energy Regulator, Safeguard facility covered emissions data

BHP is projecting an increase in Scope 1 emissions between now and FY29. It's only in FY30 - when production tapers downward to meet it's scheduled closure in FY30 - that emissions start reducing.[28] Even under this scenario in FY30, Mt Arthur's Scope 1 emissions will still contribute 451,577 to CO2-e to a 6.6 Mt CO2-e emissions overshoot in FY30 under current modelling. If you add the 60,400 t CO2-e in projected Scope 2 emissions, the contribution increases to 511,977 t CO2-e of the projected 6.6 Mt CO2-e overshoot.

Table 7 | Summary of CO2-e emissions per scope (t CO2-e)

	Scope 1			Scope 2	Scope 3
	Fugitive	Diesel + other	Total		
FY 2027	99,335	593,437	692,772	92,400	52,061,800
FY 2028	94,302	563,769	658,071	87,700	49,786,400
FY 2029	98,926	589,008	687,934	92,000	51,876,800
FY 2030	64,879	386,698	451,577	60,400	36,490,600
Average	89,361	533,228	622,589	83,125	47,553,900
Total	357,442	2,132,912	2,490,354	332,500	190,215,600

Source: NSW DPHI Assessment Report, Mt Arthur Mod 2, pg 18

[27] NSW Net Zero Commission, Consultation Paper, 9 April 2025

[28] In FY24, Mt Arthur's 2024 Annual Review reported Scope 1 and 2 GHGs at 663,868 t CO2-e. NSW DPHI - in their May 2025 Assessment Report for Mt Arthur Mod 2 at Table 7, pg 18 - predict that on average, combined Scope 1 and 2 emissions will be 705,714 t CO2-e between FY27 and FY30.

In regard to methane emissions, the story is not not good here either. In their FY24 Annual Review, BHP reported fugitive emissions of 44,000 t CO2-e and then stated that *"fugitive emissions are expected to increase over time as mining progresses into areas with higher in situ methane contents."* [29] This is confirmed by NSW DPHI's Table 7 (above), which projects more than a doubling of fugitive emissions for the next few years. Even in FY30 - when mining tapers off - fugitive emissions are still projected to be almost 50% higher than they are now.

To further compound this problem, we note ClimateTRACE estimates that fugitive emissions may be *"five times higher for Mount Arthur"* than reported.[30]

In their Jan 2025 Guide for Large Emitters, the NSW EPA advised that *"[a]s methane warms the Earth much faster than carbon dioxide, reducing methane emissions is important for slowing the rate of atmospheric warming."* They note that reducing methane emissions is *"widely regarded as the single most effective strategy to keep the goal of limiting warming to 1.5˚C"* and that for these reasons, managing fugitive methane emissions *"is a priority for the EPA".*

In regard to diesel emissions (which comprise more than 80% of Scope 1 emissions at Mt Arthur), BHP stated in April 2024 that "*[i]t is not expected that battery electric fleets will be technically proven, or commercially available at an acceptable price point until the late 2020s, assuming that the technology development pathways are successful."* [31] In the same April 2024 report, BHP cited NSW EPA's submission on Mt Arthur Modification 2 to back up their finding: *"it is agreed that electrification of the mine fleet within the Project lifetime is not feasible due to capital cost and the lack of battery electric equipment currently available at the required scale".*

NSW DPHI - in their Assessment Report - determined that overall this approval is *"consistent with current NSW and Commonwealth policy settings and would not significantly increase greenhouse gas emissions in NSW ..."* The Department's position is that the *"existing and emerging policy framework provides for the ongoing regulation of greenhouse gas emissions for the project".*

We find overall that the Department's conclusions in their Assessment Report are flawed and not supported by evidence. The assertions that the Project is *"consistent"* with NSW GHG policy settings, would not *"significantly increase"* emissions and that Scope 1 emissions would be managed by *"ongoing regulation"* are flawed for reasons including:

- DPHI stated that under the existing consent conditions, *"HVEC must implement all reasonable and feasible measures to minimise greenhouse gas emissions from the site"* (pg 19). What they failed to reveal to the decision maker after that sentence, was that these measures are ineffective and have resulted in a 12.5% increase in Scope 1 emissions in FY24 and are projected to increase further in coming years (including

[29] BHP, Mt Arthur Coal Annual Review FY24, pg 48
[30] IEEFA, METHANE: A ticking time bomb for Australian investors, March 2025
[31] BHP, April 2024, Mt Arthur Coal Mine Modification 2 – Submissions Report

fugitive emissions, which are projected to double).

- According to DPHI, the Guide for Large Emitters *"does not strictly apply"* to Modification 2 as *"the environmental impact assessment process for the proposed modification was prior to May 2024"*.[32]

- The Department asserts that an *"emerging policy framework"* will further regulate emissions, whilst acknowledging that *"guidance on the preparation of CCMAPs has not been published"* and offering no timeline for when that will happen.

- Lock the Gate disputes the Department's assertion that emissions increases attributable to this Modification are not *"significant"*:

    - We find that the Project will emit 511,977 t CO2-e or ~8% of the projected 6.6 Mt CO2-e overshoot that NSW DCCEEW currently projects for 2030. There will be very few *new* point sources of emissions in NSW that will create more Scope 1 pollution than that in 2030.

    - We note that NSW EPA is the lead regulator of GHG emissions in NSW and that they have set a threshold - in the Guide for Large Emitters - of 25,000 t CO2-e emitted in any financial year as 'large'. The 451,577 t CO2-e in Scope 1 emissions projected for Mt Arthur in FY30 is ~18 times this threshold and would be emitted at a time when the state is currently projected to fall short of the legislated target for that year.

    - Minister Sharpe has stated that meeting targets is *"essential"*, therefore any new, additional and 'large' source of emissions that compromises this target is significant.

Tahmoor Mod 3

Tahmoor is NSW's 2nd highest-emitting mine. SIMEC (owners of Tahmoor) do not currently project any reductions in emissions by 2030. Despite this, NSW DPHI claimed - when they approved an extension at Tahmoor in May 2025 - that, *"[w]ith the modification, the Tahmoor South Project would maintain a similar emissions trajectory as for NSW…".* This claim is not supported by the evidence, which finds that absent installation of a VAM system, there won't be any significant additional onsite abatement by FY30.

The latest DCCEEW modelling projects a 6.6 Mt CO2-e overshoot in 2030. If VAM abatement is not operating at Tahmoor by FY30, its Scope 1 emissions are projected to be 1,082,492 t CO2-e (or 16% of the overshoot).

Tahmoor Mod 3 was approved by NSW DPHI on 27 May 2025. The approval allows a 9-month extension to the end of 2033. NSW DPHI estimated that an additional 1.14 Mt CO2-e of Scope 1 and Scope 2 emissions will result from this approval[33], but this is not the full story.

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[32] NSW DPHI, Tahmoor Mod 3 Assessment Report, pg 16
[33] NSW DPHI, Tahmoor Mod 3 Assessment Report, pg 18

Whilst a 9-month extension may seem less significant than other coal expansion approvals, Tahmoor is a high-emitting mine, so what happens with their Scope 1 emissions between now and 2033 is consequential. Their application to modify their consent was a missed opportunity for NSW DPHI to reset the mine's GHG abatement conditions (requirements under development consents can be varied if the proponent makes an application to modify the development).

Snapshot of current and projected future emissions at Tahmoor

- Tahmoor's Scope 1 emissions increased by 9.3% in FY24 (~80% of which were methane).[34]
- SIMEC does not currently project any reductions in emissions by 2030. Scope 1 emissions are projected to be about the same in FY30 as they reported in FY24.[35]
- Scope 1 GHGs are forecast to increase significantly after FY30, from 1,082,492 t CO2-e to 1,403,684 t CO2-e in FY33.[36]
- By FY33, they are projected to ~30% higher than reported in FY24.[37]

In their May 2025 Assessment Report for Tahmoor Mod 3, NSW DPHI stated that they had *"carefully considered the increase in GHG emissions in the context of NSW and Commonwealth initiatives, including the emissions reduction targets and guiding principles set out in the Climate Change (Net Zero Future) Act 2023 (see Appendix B). The Department considers that these increases would be able to be effectively managed under current NSW GHG policy initiatives to ensure that NSW targets would not be compromised, including the overall purpose and guiding principles of the Net Zero Future Act."*

NSW DPHI (May 2025) claimed that emissions will *reduce* roughly in line with the NSW emissions trajectory:

> *"With the modification, the Tahmoor South Project would maintain a similar emissions trajectory as for NSW, with Tahmoor South emissions reducing by an average of 7.2% to 2030 and 10.2% to 2035 compared to 7.6% and 8.6% respectively for NSW in general."*[38]

NSW DPHI made the claim above, based on this analysis from EMM on behalf of Tahmoor (Nov 2024):

> *"When emissions from Scenario 2 are compared against the NSW Net Zero Emissions Dashboard, the average percentage change to 2030 is calculated to be*

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[34] Tahmoor reported 1,084,992 t CO2-e to the Clean Energy Regulator in FY24. This was up 9.3% from 992,938 t CO2-e reported to the Clean Energy Regulator in FY23.

[35] SIMEC / EMM project Scope 1 to be 1,082,492 t CO2-e in 2030 (*SIMEC / EMM, Table 1 Annual emissions and Safeguard Mechanism reductions – Tahmoor Coal, 19 December 2024)*
vs. the 1,084,992 t CO2-e that they reported to the Clean Energy Regulator in FY24.

[36] SIMEC / EMM, 19 December 2024
, Table 1 Annual emissions and Safeguard Mechanism reductions – Tahmoor Coal

[37] In FY24, SIMEC reported 1,084,992 t CO2-e to the Clean Energy Regulator. EMM, Dec 2024, Table 1 Annual emissions and Safeguard Mechanism reductions – Tahmoor Coal projects 1,403,684 t CO2-e in FY33. 1,403,684 t CO2-e is 29.4% higher than 1,084,992 t CO2-e.

[38] NSW DPHI, May 2025, Modification 3 of Tahmoor South Project (SSD 8445 MOD 3) Assessment Report, pg 19

> *-7.2%, while the average percentage change to 2035 is calculated to be -10.2%. These calculated values are very similar to those for NSW in general (-7.6% and -8.6%, respectively) in the Dashboard. This means that, although the emission profile in Scenario 2 is variable, when considered over these two time frames it broadly follows the existing NSW emissions trajectory."* [39]

As this project was not referred to the NSW IPC, NSW DPHI's assertion that "*the Tahmoor South Project would maintain a similar emissions trajectory as for NSW"* has not been tested independently.

EMM's analysis is that the *"Safeguard Mechanism will be the driving factor for implementing emission reductions at Tahmoor".*[40] This means that claimed future reductions are based largely on surrender of Safeguard Mechanism Credits and then on the purchase of ACCU offsets. Safeguard Mechanism Credits are not recognised by the NSW EPA nor the Clean Energy Regulator as offsets. ACCUs are recognised as offsets, but can only count to the NSW emissions inventory if they are sourced in NSW. As noted above, NSW DCCEEW has advised that *"there is no current way for NSW to track where offsets used to meet declining emissions baseline obligations were generated"*, therefore NSW DPHI's assumption that offsets purchased by Tahmoor will count as emissions reductions in NSW is clearly unreliable at best.

EMM's December 2024 advice that NSW DPHI relied upon, stated in regard to VAM abatement, that *"Tahmoor Coal estimate the potential timing for such equipment would be in the late 2020's, depending on whether the process is technically and commercially viable."* With the caveats about technical and commercial viability (there are also system safety issues that need to be resolved), EMM's finding provides no certainty at all that the mine will *"maintain a similar emissions trajectory as for NSW"*.

Further, we note that ~81% of Tahmoor's Scope 1 emissions in FY24 were methane.[41] Neither the surrender of SMCs nor the purchase of ACCUs by SIMEC will result in the drawdown of any of SIMEC's methane emissions from the atmosphere. Significant actual reductions in emissions beyond BAU depend largely on the viability of VAM abatement, which has not been required as a condition of consent.

Lock the Gate Alliance believes that a VAM RTO system is viable at Tahmoor. We note Peak Carbon's submission to the NSW Parliament's JSC inquiry into the Net Zero Commission's 2024 Annual Report that found:

> *"There are a number of currently high emitting facilities where we believe a VAM abatement system could be installed within a short time period (18 months) and achieve material abatement well ahead of 2030."*

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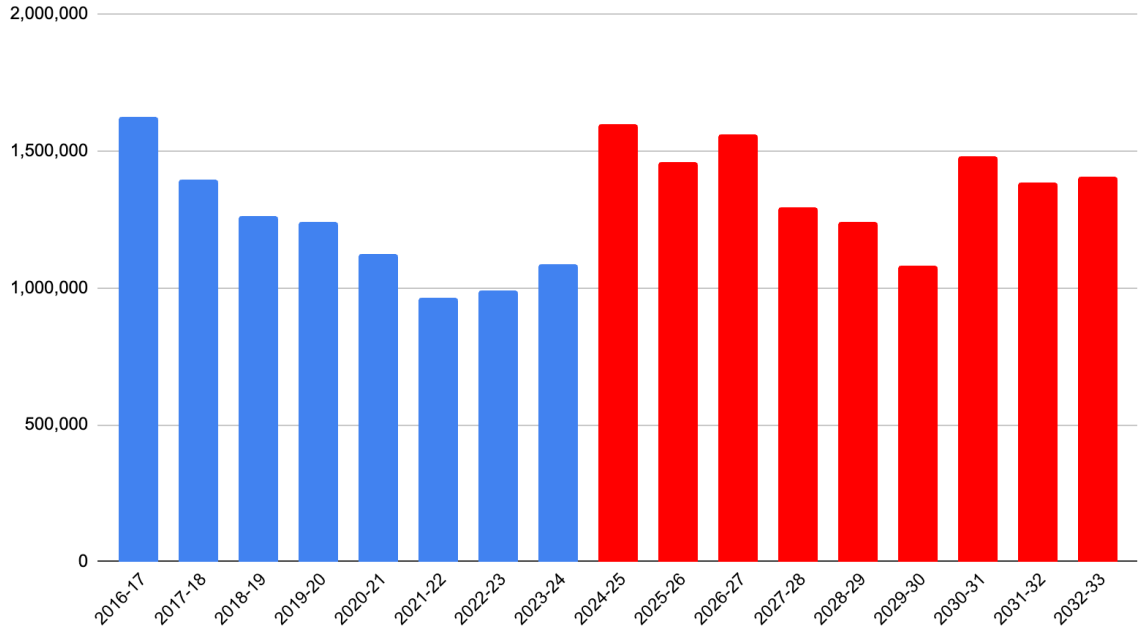
[39] EMM, November 2024, Tahmoor South Modification 3, Greenhouse gas assessment - Draft NSW EPA Guide for Large Emitters, Prepared for Tahmoor Coal, pg 33

[40] EMM, 19 December 2024, Tahmoor Coal MOD3 - GHG Assessment - Response to NSW EPA submission

[41] See Clean Energy Regulator's 2023-24 Baselines and emissions table (46.8 KB XLSX) available here: https://cer.gov.au/markets/reports-and-data/safeguard-data/2023-24-baselines-and-emissions-data

VAM abatement is critically important to reducing methane emissions in NSW's energy sector. If implemented, a system at Tahmoor would be expected to achieve about a 79% reduction in fugitive methane emissions. SIMEC's Modification Report predicted that without a VAM system, VAM emissions would be 994,191 t CO2-e in 2030[42]. A 79% reduction of these emissions would yield a 785,411 t CO2-e reduction in NSW's emissions, which is close to 12% of NSW's 6.6 Mt CO2-e 2030 abatement gap in FY30 (under projections in the Net Zero Emissions dashboard updated in June 2025). SIMEC's stated plan for VAM abatement is to produce a *"concept study"* with *"intent"* to progress to a *"pre feasibility level study"* which they suggest may - or may not - set them up to implement VAM abatement *"in the late 2020's, depending on whether the process is technically and commercially viable"*.[43]

Figure 1: Tahmoor Scope 1 GHGs - CER Safeguard Facility data (blue) vs EMM projections for Scenario 2 Mod 3 (red)



Source: data for blue columns sourced from CER Safeguard Facility reporting. Data for red columns sourced from SIMEC / EMM, Table 1 Annual emissions and Safeguard Mechanism reductions – Tahmoor Coal, 19 December 2024

Ulan Mod 6

Ulan Mod 6 was approved by NSW DPHI on 22 May 2025. The approval allows a two-year extension to mine an additional 18.8 Mt ROM coal by 30 August, 2035. NSW DPHI estimated that an additional 97,984 t CO2-e of Scope 1 and 36,954 t CO2-e of Scope 2 emissions will result from this approval between 2025 and 2032.[44] The Project will also result in an additional 41.6 Mt CO2-e in Scope 3 emissions.

[42] See Modification Report, Table 6.35, May 2024 for VAM emissions projections
[43] EMM, Tahmoor Coal MOD3 - GHG Assessment - Response to NSW EPA submission, 19 December 2024
[44] NSW DPHI, May 2025, Modification 6 of Ulan Continued Operations Project (MP08_0184-Mod-6) Assessment Report, pg 37

20,824 t CO2-e of additional emissions attributable to Mod 6 are projected for 2030.[45]

Ulan has a GHG mitigation plan but it's not reducing Scope 1 emissions, which in FY24 were at a 5-yr high (see Figure 1 and Table 1 below).

Table 1: Scope 1 emissions at Ulan Coal Mine from FY20 to FY24

	FY20	FY21	FY22	FY23	FY24
Scope 1 (t CO2-e)	40,416	41,154	51,039	44,723	53,550

Data: Glencore, Ulan Coal Mine Annual Review 2024, Table 6-10 - Summary Scope 1 and 2 emissions Statistics for FY23/24.

As Scope 1 emissions are under the 100,000 t CO2-e annually, the mine is not subject to Safeguard Mechanism GHG controls. Glencore are somewhat blunt about this in version 9 (July 2024) of their Air Quality and Greenhouse Gas Management Plan:

> *"As UCMPL is not predicted to emit over 100kt CO2-e from Scope 1 emissions (the threshold required to be registered as a Safeguard Facility) UCMPL has no baseline threshold and UCMPL are not required to commit to specific greenhouse gas performance targets under legislation, industry codes of practice or GCAA Standards."*[46]

The NSW EPA reviewed GHG mitigation measures proposed for Ulan Mod 6 in June 2024, including actions related to *"reducing fuel use for non-road vehicles, onsite stationary plant and electricity consumed by the ventilation system and the coal handling and preparation plant"*. The NSW EPA's assessment was that it was *"unlikely these measures will substantially reduce the greenhouse gas footprint of the UCC"*.

In their Assessment Report, NSW DPHI noted that *"In April 2024, the NSW Department of Climate Change, Energy, the Environment and Water released projections of NSW's progress against the emissions reduction targets. Emissions associated with the originally proposed modification were accounted for in these projections. Commentary from the Net Zero Commission advised that NSW has made significant progress in reducing emissions since 2005, however an acceleration in effort will be required to keep targets in reach."*

What they did not say - anywhere in their Assessment Report - is that NSW is not on track to meet its legislated targets and that this Project will exacerbate this problem.

The Department's approach to future emissions is to recommend that a new mitigation plan is prepared, this time *"in consultation with the EPA"* by the end of 2025. At page 42 of the Department's Assessment Report for Mod 6 however, DPHI conceded that *"the regulation of GHG emissions is in a transitional state and EPA's requirements for a GHG mitigation plan are still under development"*.

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[45] Airen Consulting, 23 April 2024, Ulan Complex Modification 6 Amendment, Table 2 Estimated GHG emissions, pg 6

[46] Glencore, July 2024, Ulan Coal Air Quality and Greenhouse Gas Management Plan, Pg 41

NSW DPHI claimed that *"[o]verall, the Department considers additional emissions associated with the modification can be managed under current policy initiatives without compromising NSW's emissions reduction targets …"*[47]

Also in regard to future emissions at this mine, we note that Ulan is seeking a further modification to extend mining out to 2041: see Mod 8 - Ulan West Continued Operations.

Appendix 2

Coal-mine extension projects currently under assessment by NSW DPHI

1 Moolarben OC3 Extension Project
2 Chain Valley Colliery Consolidation
3 Hunter Valley Operations Continuation Project
4 Newstan Mine Extension Project
5 Angus Place West
6 Rix's Creek North Continuation Project
7 Maules Creek Continuation Project
8 Clarence MOD 8
9 Bloomfield Colliery Continuation Project Modification 5
10 Wilpinjong MOD 3 Pit 3 / 8 extension
11 Metropolitan Modification 4 Longwall 317 and 318
12 Boggabri Mod 10 - Increase to mine footprint and mine life
13 Ulan West Continued Operations Project - Mod 8
14 Russell Vale Modification 2
15 Dartbrook Modification 8]
16 Invincible Colliery Modification 6 - Extension of Life
17 Cullen Valley Modification 5 - Extension of Life
18 Narrabri Coal MOD 2 - Bord and Pillar Mining Extension

Coal-mine extension projects which have been flagged by coal companies but which are not yet in the NSW planning system

1. Clarence Mine Extension Project
2. Clarence Mod 11
3. Mt Thorley Warkworth underground mine expansion
4. Wilpinjong: possible extension beyond Mod 3 being contemplated
5. West Muswellbrook
6. Dendrobium - 3 yr extension

[47] NSW DPHI, Modification 6 of Ulan Continued Operations Project (MP08_0184-Mod-6) Assessment Report | vi