



**Submission to the NSW Parliament Joint Standing Committee on Net Zero Future**

## **Inquiry into emissions from the fossil fuel sector**

**Mining and Energy Union, August 2025**

The Mining and Energy Union (MEU) welcomes the opportunity to make a submission to the Committee on its inquiry into emissions from the fossil fuel sector.

The MEU represents more than 25,000 members nationally working in Australia's mining and energy industries, predominantly in coal mines and coal-fired power stations.

In New South Wales, our Northern Mining & NSW Energy District represents members working in the coal mines of the state's Northern coalfields and in all NSW coal-fired power stations, and our South Western District represents members working in the state's Southern and Western coalfields. We also represent workers in NSW metalliferous mining through the NSW Mineworkers Alliance, a partnership with the Australian Workers Union.

MEU members are acutely aware of the challenges facing their industries and communities into the future. NSW's coal regions are already navigating the consequences of major coal-fired power station closures and preparing for major upheavals in the near future – including the 2030 closure of the state's largest coal mine Mt Arthur Coal, with impacts for more than 2600 direct employees<sup>1</sup> and significant implications for supply chain and local business and the community of Muswellbrook.

An orderly transition is critical to ensure that workers and communities are not left behind by the transition to face prolonged unemployment and economic depression. The coal industry is the lifeblood for key regional economies in NSW and emissions policies must be designed with this in mind. Policies and regulations which lead to sudden closures – including onerous conditions placed on mine licensees – would be detrimental to workers, communities, and the prospects of a truly just transition to a low emissions economy.

In addition to our comments below on the implementation and feasibility of emissions abatement in coal mining, we refer the Committee to our recent submission on the Net Zero Commission's 2025 Consultation Paper (*Attachment 1*) in relation to the inquiry's broader terms of reference. Our submission to the Net Zero Commission affirmed our view that the federal Safeguard Mechanism is the appropriate policy for managing emissions in the NSW coal sector.

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<sup>1</sup> BHP Mt Arthur Coal Annual Review FY24, p. 16.

*(e) Implementation and feasibility of emissions abatement in coal mining, including ventilation air methane (VAM) abatement technology*

The two main sources of emissions from the coal mining process are fugitive methane emissions released from the coal seam and emissions from the use of diesel fuel to power the haulage fleet and machinery. The MEU is supportive of the safe use of emissions abatement technologies in the coal mining industry. These technologies enable the coal industry to contribute to economy-wide decarbonisation efforts and bolster its social licence to operate. The federal government's reformed Safeguard Mechanism has created strong incentives for the adoption of emissions abatement technology in NSW coal mines.

Emissions abatement technologies are typically more advanced for underground coal mines than for open cut coal mines. Methane drainage is commercially available and already widely adopted by underground coal mines in Australia, introduced to ensure that methane concentration underground stays below safe operating limits. There is scope to derive further benefits from underground methane drainage through utilisation of drained gas, including for electricity generation.

Ventilation air methane (VAM) abatement involves the destruction or utilisation of captured VAM from underground coal mines through thermal or catalytic oxidation, or concentration.<sup>2</sup> VAM abatement is frequently identified as a key technology for abating emissions in the coal sector, and there are multiple examples of VAM projects internationally (e.g., in China and the United States).

As the introduction of an ignition source to a mine's ventilation system is inherently risky, safety must be a key consideration when it comes to assessing the potential deployment of VAM abatement technology in NSW. We welcome the involvement of NSW Resources, through its Coal Innovation NSW Fund, in research, development, and demonstration of VAM abatement facilities in NSW. Coal Innovation NSW grants have supported important collaborations between mine operators and the CSIRO to trial technologies that would meet NSW mine safety standards. For example, a \$15 million grant is supporting Appin Colliery to construct a full-scale VAM mitigation (VAMMIT) thermal reactor for long-term testing and safety system monitoring, advancing on the previous success of a small-scale trial.<sup>3</sup>

Innovations in VAM technology must only be led by reputable mine operators with strong safety records. The MEU encourages the coal industry and NSW Government to take a collaborative and research-based approach to the development and adoption of VAM technologies. Consultation with workers and unions throughout this process is essential. We believe this is critical to ensure that progress in this area does not lead to compromise on matters of safety.

Methane pre-drainage technologies have strong potential in open cut mining, however fugitive emissions abatement at open cut coal mines is generally more challenging, with technology still in its very early stages. The Climate Change Authority has noted that 'there is limited understanding

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<sup>2</sup> Climate Change Authority, 2024, *Sector Pathways Review*, p. 122

<sup>3</sup> <https://www.resources.nsw.gov.au/invest-nsw/coal-innovation-nsw/fugitive-methane-emissions-from-coal-mines>

of the potential application of gas drainage systems to surface coal mines in Australia, including the efficacy, cost, and realistic timeline of implementing such systems.’<sup>4</sup>

Improvements to fuel efficiency can lower emissions from diesel use at both open cut and underground mines. However, reducing diesel emissions in the coal industry will eventually require meaningful steps towards electrification of processes and fuel switching (where processes cannot be electrified). In most cases, these technologies are many years away from maturity. Ongoing commitment to research and development will be necessary to achieve desired emissions cuts. Workers and unions must be genuinely consulted on any operational changes related to fuel efficiency and the deployment of lower-emissions technology in the coal industry.

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<sup>4</sup> Climate Change Authority, 2024, *Sector Pathways Review*, p. 123

## MINING & ENERGY UNION

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### NSW Net Zero Commission 2025 Consultation Paper

Mining and Energy Union, July 2025

The Mining and Energy Union (MEU) represents more than 25,000 members nationally working in Australia's mining and energy industries, predominantly in coal mines and coal-fired power stations.

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We welcome the opportunity to provide views to the Net Zero Commission as it develops its work plan and considers its policy advice to the NSW Government.

#### ***MEU members and their communities find themselves at the centre of the net zero transition***

The net zero transition is set to profoundly impact the regions which have powered NSW, and underpinned its economic prosperity, for generations. Coal workers and coal communities in New South Wales are well-aware of the significant changes that will affect their industries and communities as the energy transition progresses in response to the climate change and emissions policies of governments and major companies.

Coal communities in New South Wales are already navigating the fallout of major power station and mine closures, most notably the recent closure of Liddell Power Station in the Hunter region, as well as earlier closures in the Lithgow area. By 2030, Eraring Power Station and Mt Arthur Mine, respectively the largest coal power station in Australia and largest coal mine in NSW, are also slated to close.

Traditional customers for Australian thermal coal exports, such as Japan and South Korea, have net zero targets in place, and increased thermal coal demand from emerging economies may only partially offset an overarching decline in global demand over the longer-term.<sup>1</sup> With demand for metallurgical coal expected to be more resilient<sup>2</sup>, the state's coal industry is likely to continue into the 2050s or beyond, but it may be smaller and more geographically concentrated in the regions that produce metallurgical coal. Consequently, NSW coal communities will experience the net zero transition in different ways and at different times.

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<sup>1</sup> Department of Regional NSW, Future Jobs and Investment Authorities Issues Paper, May 2024, p. 10.

<sup>2</sup> Ibid, p. 11.

***The regional social and economic implications of the net zero transition must be carefully managed***

To avoid the mistakes of the past, which have seen industry closures and downturns lead to entrenched unemployment and economic depression in local communities, the transition to net zero must be an orderly one. The consultation paper notes the NSW Government's commitment to establishing Future Jobs and Investment Authorities across the state's coal-reliant regions. We welcomed last month's announcement from Minister Houssos indicating that legislation would be introduced to establish the Authorities in the coming months.

The Future Jobs and Investment Authorities have an important role to play in delivering a transition that is fair and supports the future prosperity of coal regions through strategic regional planning, facilitating investment and economic diversification, taking a proactive role in improving post-mining land use policy and planning, mapping and improving the skills and capabilities of regional workforces, and collaborating with local communities. We expect the Future Jobs and Investment Authorities to complement the important work of the federal Net Zero Economy Authority and its Energy Industry Jobs Plans for workers directly affected by coal power closures. The work of state and federal transition authorities must ensure that no worker or community is left behind by gaps in support.

We note the consultation paper's acknowledgement of the regulatory challenge of managing legacy emissions from closed coal mines. This is an issue of critical importance for public health, community wellbeing, and the local environment in mining communities. As a union, we have been engaging with the NSW Government on the need for reforms to mining rehabilitation and post-mining land use regulatory regimes to support improved standards and facilitate productive alternative uses for mined land. Reforms of this kind could also prove instrumental in supporting new economic opportunities for coal regions.

***An orderly transition requires a balanced approach to the role of the coal mining industry in NSW***

It's clear that the domestic energy transition is well-underway, and those impacted are rightly a special focus of government policy initiatives like the new federal Net Zero Economy Authority. But key regional economies in NSW continue to rely heavily on a thriving export coal industry. As the engine room of NSW's energy and export economy for decades, the coal industry can be a stabilising foundation for the state's transition, not a casualty of it.

Employment in coal production roles in NSW has, in recent years, been sustained at historical highs above 25,000 workers. In towns such as Muswellbrook, Lithgow, Singleton, Gunnedah, and Narrabri, coal mining underpins local economies and supports small businesses, services, and infrastructure.

The ongoing health of NSW's coal industry is critical to safeguard regional prosperity as new net zero industries gradually ramp-up – while there have been many investment and project

announcements across renewable manufacturing, hydrogen, and more, most remain at early stages, still years away from delivering a meaningful number of jobs and economic activity.

The coal industry is also an important source of revenue to the state government through the payment of royalties. Royalties are expected to deliver around \$3.3 billion annually to the NSW budget for the duration of the forecast period out to 2028-29.<sup>3</sup> Future commodities like critical minerals cannot be expected to replace lost revenue from coal – they are not bulk commodities and operations are far more marginal than in the coal and iron ore industries.

We welcome investment in new industries across critical minerals, manufacturing, and the clean energy supply chain. These industries will bring important jobs and economic activity to our regions as the transition progresses. However, the Net Zero Commission should not recommend policies which would meanwhile work to impede coal mining approvals and affect the viability of existing mines while new industries are at early stages and nowhere near capable of replacing the local jobs, prosperity, and revenue that would be lost. We urge the Commission to recognise the ongoing strategic role of coal in regional development and energy security and to avoid recommending policies that pre-emptively constrain an industry that remains vital to the state's economy and workforce.

***The Safeguard Mechanism is the appropriate policy to support emissions reduction in the NSW coal mining industry***

The Safeguard Mechanism places obligations on high-emitting facilities, including coal mines, to reduce scope 1 emissions. Compliance with Safeguard Mechanism obligations supports the coal industry to decarbonise its operations and play its fair share in meeting emissions targets – which is essential for maintaining the industry's social licence into the future.

The Safeguard Mechanism is the appropriate public policy tool for reducing emissions in the coal mining industry. Around 95 per cent of the NSW coal sector's emissions are covered by the Safeguard Mechanism. This provides a clear, predictable baseline for mines to adhere to and is incentivising investment in technologies like ventilation air methane capture and fuel switching away from diesel. Adding new emissions requirements across multiple policies and levels of government would be duplicative, confusing, and unnecessary.

Additionally, recognition of interstate offsets when calculating the emissions of NSW facilities would ensure improved alignment with the frameworks of the Safeguard Mechanism, which allow for trading of offsets and of Safeguard Mechanism Credits generated by other covered facilities across the country in what is a *national* scheme.

Lastly, current state and federal government emissions policies and regulations are based on net emissions measures. To support compliance and consistent policy across levels of government, and provide investment certainty, net emissions measures should remain the standard. We are therefore concerned by recent indications that gross emissions measures may be taking on a greater role within some parts of the NSW environmental and planning regimes.

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<sup>3</sup> Summary of general government sector revenue and its components, NSW 2025-26 Budget Papers.