



Environmental
Defenders Office

**Submission to the Inquiry into the 2024 Annual Report of
the Net Zero Commission**

14 February 2025

About EDO

EDO is a community legal centre specialising in public interest environmental law. We help people who want to protect the environment through law. Our reputation is built on:

Successful environmental outcomes using the law. With over 30 years' experience in environmental law, EDO has a proven track record in achieving positive environmental outcomes for the community.

Broad environmental expertise. EDO is the acknowledged expert when it comes to the law and how it applies to the environment. We help the community to solve environmental issues by providing legal and scientific advice, community legal education and proposals for better laws.

Independent and accessible services. As a non-government and not-for-profit legal centre, our services are provided without fear or favour. Anyone can contact us to get free initial legal advice about an environmental problem, with many of our services targeted at rural and regional communities.

www.edo.org.au

Submitted to:

Joint Standing Committee on Net Zero Future
NSW Parliament

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Acknowledgement of Country

The EDO recognises First Nations Peoples as the Custodians of the land, seas, and rivers of Australia. We pay our respects to Aboriginal and Torres Strait Islander Elders past, present, and emerging, and aspire to learn from traditional knowledge and customs so that, together, we can protect our environment and cultural heritage through both Western and First Laws. In providing submissions, we pay our respects to First Nations across Australia and recognise that their Countries were never ceded and express our remorse for the deep suffering that has been endured by the First Nations of this country since colonization.

Executive Summary

Environmental Defenders Office (**EDO**) welcomes the opportunity to make a submission into the 2024 Annual Report of the NSW Net Zero Commission (**Commission**).

The Annual Report confirmed that NSW is currently not on track to meet any of its emissions reduction targets unless faster and more significant progress is made on emissions reductions decisively now.

“[U]nless faster and more significant progress is made, the target for 2030 will not be achieved, the 2035 target could be out of reach, and the challenge of meeting net zero by 2050 may become more difficult.”¹

The Commission explicitly identified the large number of coal mine applications (for new and extended mines) currently under assessment as a risk to NSW being able to meet its emission reduction targets.²

It noted that emissions increases associated with extended or expanded coal projects would require other sectors to make greater emissions cuts, and conversely the importance of all sectors of the economy playing their part in meeting NSW’s legislated emissions reduction targets. Emissions increases associated with extended or expanded coal projects “pose a major challenge for the state’s regulatory arrangements”.³

This submission primarily addresses the Commission’s findings in the Annual Report relating to this identified major challenge. We would be happy to provide feedback on other issues if requested.

Summary of Recommendations

- 1. The NSW Net Zero Commission be requested, as a matter of priority, to provide a detailed report to the NSW Government on the risks posed to the state's targets from increased emissions in the resources sector. This report must:**
 - a. integrate the most accurate possible data on open-cut coal mine fugitive emissions given the likely underestimation of those emissions in current projections;**
 - b. provide an assessment of the impact on the State’s emission reduction targets if all the coal projects currently under assessment are approved;**
 - c. include advice on sectoral (resources) and sub-sectoral (coal mining) pathways to net zero.**

¹ NSW Net Zero Commission, *2024 Annual Report* (October 2024) available at <https://www.netzerocommission.nsw.gov.au/2024-annual-report> (2024 Annual Report), p 9.

² 2024 Annual Report, p 43.

³ 2024 Annual Report, p 12.

- 2. The NSW Net Zero Commission be requested to:**
 - a. review the NSW Government’s legislative and policy framework relating to the assessment and approval of coal projects in NSW; and**
 - b. recommend action that should be taken by the NSW Government in respect of the assessment and approval of coal projects in NSW to ensure NSW meets its emissions reduction targets, and having regard to the guiding principles of the *Climate Change (Net Zero Future) Act 2023 (NSW)*.**

- 3. The NSW Net Zero Commission be requested to:**
 - a. Review the regulation, compliance and enforcement of direct emissions from existing coal projects in NSW;**
 - b. Recommend action that should be taken by the NSW Government in respect of the regulation, compliance and enforcement of direct emissions from existing coal projects in NSW to ensure NSW meets its emissions reduction targets, and having regard to the guiding principles of the *Climate Change (Net Zero Future) Act 2023 (NSW)*.**

- 4. The NSW Net Zero Commission be formally required to provide advice and recommendations to the decision-maker on all applications for new or expanded coal projects in NSW under s 15(3) of the *Climate Change (Net Zero Future) Act 2023 (NSW)*.**

The Commission is concerned about the risks to the state's targets from increased emissions in the resources sector

NSW is not on track to meet its 2030 and 2035 targets without further action. In August 2024 the NSW Government released the updated climate change projections which clearly demonstrated more urgent action is needed.

The Commission’s 2024 Annual Report confirmed this, and observed that:

“unless faster and more significant progress is made, the target for 2030 will not be achieved, the 2035 target could be out of reach, and the challenge of meeting net zero by 2050 may become more difficult.”⁴

It particularly identified “the risks to the state's targets from increased emissions in the resources sector” as a cause for concern. It is clear that its primary concern is increased emissions from the coal mining sector in particular. As the Annual Report points out, “non-coal mining operations in the [resources] sector have a potential pathway to low emissions” because the sources of those

⁴ 2024 Annual Report, p 9.

emissions have low emissions alternatives.⁵ This implicitly acknowledges that this is not the case for coal.

In our view, there are **four key issues** associated with this sub-sector as relates to the Annual Report and to the functions of the Commission under the *Climate Change (Net Zero Future) Act 2023* (NSW) (**Net Zero Act**):

- fugitive emissions from open-cut coal mines are likely to be significantly higher than the figures set out in the Annual Report (and used by a range of NSW agencies and decision makers);
- there are a vast number of applications for new or expanded coal mines in NSW, and based on current regulatory practice their climate and net zero impacts are not being appropriately assessed and weighted by decision-makers;
- there is inadequate regulation or control of fugitive methane and other greenhouse gas (**GHG**) emissions at existing resources, particularly coal, operations; and
- the indirect emissions from the coal mined that will exacerbate climate change and have a significant and deleterious impact on the NSW population and environment.

These issues are addressed below. The Annual Report pointedly notes that:

“sustained progress towards achieving net zero requires not only the effective implementation of existing policies, but also the capacity to identify where these policies must be refined or improved. It also requires the capacity to identify and fill policy gaps and determine the scope for further action. Further opportunities to accelerate progress must also be considered. The NSW Net Zero Commission has a key role to play as an adviser to the NSW Minister for Climate Change, and through the minister, to the Parliament of NSW in helping achieve the necessary progress.”

The Commission states that it will place priority on deep consideration of the issue of increased emissions associated with coal mine projects currently seeking planning approval, “[g]iven the criticality of this sector for achievement of NSW existing and future net zero emissions targets.”⁶

EDO strongly endorses this approach, and requests that the Committee recommend that the Commission address the matters discussed below in its consideration of this issue.

1. Fugitive methane from open cut coal mines is likely to be significantly underestimated

The Commission’s emissions assessment draws heavily on the National Greenhouse Accounts, which are informed by data reported under the *National Greenhouse and Energy Reporting Act 2007* (Cth) (**NGER Act**). The Annual Report stated that the resources sector contributed an estimated 13.8 Mt CO₂-e to the state’s direct emissions in 2022, making up 11 per cent of the state’s total

⁵ 2024 Annual Report, p 46.

⁶ 2024 Annual Report, p 43.

emissions.⁷ Fugitive emissions from coal mining made up 72.7% of direct emissions from the NSW resources sector, most of which are fugitive methane, with contributions from carbon dioxide escaping during the extraction of coal. In 2022, fugitive emissions from underground coal mines were estimated at 8.1 Mt CO₂-e, while open cut coal mining contributed 2 Mt CO₂-e.⁸

However, studies have shown that it is likely that actual fugitive emissions from open cut coal mines are significantly higher and could be double those being reported.⁹ Open Methane's report looking into the variance between reported emissions based on NGER figures and actual emissions using data collected from satellite observations shows actual methane levels some 2.5 times higher than reported.¹⁰ These findings were confirmed by International Energy Agency figures which show that Australia's fugitive emissions are nearly twice as high as national estimates.¹¹

In December 2023, the Climate Change Authority (**CCA**) undertook a review of the NGER Act and scheme (**CCA Review**) and made significant recommendations in relation to how methane emissions, in particular fugitive emissions, are reported.¹² It found that where facilities reported using Methods 1-3 (which include open-cut coal mines), there were significant discrepancies between reported emissions and emissions estimated using satellite data.¹³ Additionally, certain fugitive emissions don't have to be reported at all, such as those from decommissioned open cut coal mines.¹⁴ It made recommendations to improve the accuracy of fugitive methane emissions estimates in Australia, through the use of higher order methods and independent verification of facility-level emissions estimates using top-down measurements. While the Australian Government has agreed in principle or agreed to these recommendations, there is no set date for commencement of the new reporting method.¹⁵

⁷ Net Zero Commission, *2024 Annual Report* (December 2024), available at <<https://www.netzerocommission.nsw.gov.au/2024-annual-report>> (**2024 Annual Report**), p 47.

⁸ 2024 Annual Report, p 47.

⁹ A Reynolds and E Whittle, *Not Measured, Not Managed: Australia remains ignorant of its coal mine methane problem* (November 2023) <https://ember-climate.org/insights/commentary/australia-coal-mine-methane-problem/>.

¹⁰ P Rayner and A Grant, *Open Methane's First Results Build the Urgent Case for Improved Emissions Measurement* (30 April 2024) <<https://openmethane.org/analysis/open-methane-first-result-builds-case-for-improved-measurement>>.

¹¹ International Energy Agency, *Global Methane Tracker 2022 Methane and Climate Change* <https://www.iea.org/reports/global-methane-tracker-2022/methane-and-climate-change>; Institute for Energy Economics and Financial Analysis, *Fugitive methane emissions cast dark cloud over Australia's Net Zero ambitions* (5 July 2023) <<https://ieefa.org/articles/fugitive-methane-emissions-cast-dark-cloud-over-australias-net-zero-ambitions>>.

¹² Climate Change Authority, *2023 Review of the National Greenhouse and Energy Reporting Legislation* <<https://www.climatechangeauthority.gov.au/sites/default/files/documents/2023-12/2023%20NGER%20Review%20-%20for%20publication.pdf>> (**CCA Review**).

¹³ CCA Review, pp 5-6, 65-84.

¹⁴ CCA Review, p 76.

¹⁵ CCA Review, p 117.

As such, unless and until the federal Government has implemented the CCA’s recommendations on methane reporting under the NGER Act scheme, reliance on NGER Act scheme data for open cut coal mine emissions is likely to significantly underestimate those emissions, with consequential impacts on sector transition pathways, the Net Zero Dashboard, and the achievement of NSW’s emissions reduction targets. More accurate data should be sought as a matter of priority, and any assessment or advice addressing the resources sector should be based on the updated estimates of open-cut coal mine emissions.

Accurate data on methane emissions is particularly important because methane is a potent greenhouse gas and has more than 28 times the warming potential than carbon dioxide over a 100-year period with an atmospheric life of around 12 years. It is responsible for around 30% of the rise in global temperatures since the industrial revolution.¹⁶

It has been established that given its short atmospheric lifetime, the benefit of acting now to rapidly reduce methane emissions will result in rapid reduction of warming, making methane one of the best ways of limiting warming in this, and subsequent decades.¹⁷ In fact, the United Nations Environmental Programme’s 2021 Global Methane Assessment (GMA) found that “mitigation of methane is very likely the strategy with the greatest potential to decrease warming over the next 20 years.”¹⁸ This view is supported by the IEA which has stated that “rapid and sustained reductions in methane emissions are key to limiting global warming to 1.5°C in the immediate future.”¹⁹

The Annual Report found that “[t]he April 2024 projections show NSW barely reaching its targets for 2030 and 2035, but only under the most optimistic assumptions modelled”²⁰. These projections are based on a substantial underestimation of open-cut coal mine fugitive emissions. In order to truly understand the task of meeting the State’s emission reduction targets, and formulate and implement plans for the whole of the economy, accurate emissions data for coal mine methane must be obtained and integrated into all relevant advice and decisions.

2. The risk of increased emissions associated with the sizeable pipeline of coal mine extension and expansion applications

The Annual Report highlighted the Commission’s concern that increased emissions associated with the large number of new or expanded coal mining projects risks the achievement of NSW’s emissions reduction targets. and that in particular the “potential emissions increases from [coal]

¹⁶ IEA *Global Methane Tracker 2022 Methane and Climate Change* <<https://www.iea.org/reports/global-methane-tracker-2022/methane-and-climate-change>>.

¹⁷ United Nations Environment Programme & Climate & Clean Air Coalition *Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions* (2021), p 21.

¹⁸ United Nations Environment Programme & Climate & Clean Air Coalition, *Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions* (2021), p 17.

¹⁹ International Energy Agency, *Methane and Climate Change, Global Methane Tracker 2022 (2022)*. Available at <<https://www.iea.org/reports/global-methane-tracker-2022/methane-and-climate-change>>.

²⁰ 2024 Annual Report, p 10.

projects seeking planning determination pose a major challenge for the State's regulatory arrangements.”²¹

The Commission observed that at the time of the writing of the Annual Report, a number of coal mine extension projects had recently received approval, and that 33 planning applications for existing coal operations were being considered by the Planning Department, 22 of which would have potential impacts on the state's emissions.

EDO agrees that this is a significant risk. In our experience, there continues to be a lack of coordinated whole of government approach to meeting the emissions reductions targets as relates to coal mining (both for existing operations and those undergoing planning assessment). Although some initiatives, such as the *NSW EPA Guide to Large Emitters*, are slowly being rolled out, there has been reluctance by regulators such as the Planning Department and EPA to utilise tools already available to them to require reductions in direct GHG emissions. This is despite the May 2024 NSW Government direction to entities involved in assessment and decision-making processes under the planning system to consider NSW's emissions-reduction targets and, to the extent relevant, consider the guiding principles of the Net Zero Act when examining new developments.²²

Recommendation 1: The NSW Net Zero Commission be requested, as a matter of priority, to provide a detailed report to the NSW Government on the risks posed to the State's targets from increased emissions in the resources sector. This report must:

- a. integrate the most accurate possible data on open-cut coal mine fugitive emissions given the likely underestimation of those emissions in current projections;
- b. provide an assessment of the impact on the State's emission reduction targets if all the coal projects currently under assessment are approved;
- c. include advice on sectoral (resources) and sub-sectoral (coal mining) pathways to net zero.

EDO has concerns about a number of aspects of the assessment and approval of new and expanded coal mines as relevant to the work of the Commission and would welcome the opportunity to make a detailed submission to the Commission on law and policy gaps and improvements that could be made. For example (but by no means an exhaustive list):

- There is currently no transparency around if or how the projected emissions from projects under assessment have been integrated into the Net Zero Dashboard, and if or how any proposed approval of such projects is consistent with the NSW emissions reductions targets.

²¹ 2024 Annual Report, p 43.

²² NSW Government, *Ministerial Statement Updates regarding Net Zero Plan Stage 1: 2020-2030 and previous Implementation Updates* (20 May 2024), available at <<https://www.energy.nsw.gov.au/nsw-plans-and-progress/government-strategies-and-frameworks/reaching-net-zero-emissions/update>>.

- Applications for modification of coal projects, even those associated with increased extraction, or extraction for a longer period, continue to be assessed and approved by the Planning Department, without the sufficient scrutiny, public input, and independent expert advice that is warranted for projects which cumulatively (and in some instances, individually) pose such a risk to the achievement of the State’s emission reduction targets. These modifications should in our view be referred to the Independent Planning Commission for determination.
- Third party merits review is a crucial transparency and accountability measure that promotes good decision making.²³ Merits review rights for objectors should be restored in relation to decisions on applications for new or expanded projects with significant direct or indirect GHG emissions (for example, through a new ministerial direction directing public meetings for coal or gas projects).
- The *Strategic Statement on Coal Exploration and Mining in NSW*, made under former Minister for Resources John Barilaro, is inconsistent with the Net Zero Act but has yet to be formally rescinded and its status is unclear. It should be formally rescinded.
- Conditions placed on development consents under the *Environmental Planning and Assessment Act 1979* (NSW) (**EP&A Act**) and on Environment Protection Licences under the *Protection of the Environment Operations Act 1997* (NSW) (**POEO Act**) do not appropriately limit scope 1 and 2 conditions, even where mitigation measures are readily available.

The coal mining sector must wind down in order to meet State and National emissions reduction targets

The Commission found that “[a]ny emissions increases associated with extended or expanded projects would require all other sectors to make greater emissions reductions if the state is to meet its emissions reduction targets. The emissions increases pose a major challenge for the state's regulatory arrangements.”²⁴ As set out above, it implicitly acknowledged that there is no

²³ See, for example, the Independent Commission Against Corruption, *Anti-corruption safeguards in the New South Wales planning system* (2012), available at <https://www.icac.nsw.gov.au/ArticleDocuments/625/Anti-corruption_safeguards_and_the_NSW_planning_system_2012_c_.pdf.aspx>.

²⁴ 2024 Annual Report, p 12. Footnotes omitted.

way for direct emissions from coal mines to be entirely mitigated.²⁵ Indirect emissions from coal must also cease as soon as possible for global temperature rise to be stabilized at 1.58°C.²⁶

The NSW Government policy is that all sectors ratchet down emissions to meet NSW's legislated targets.

The Annual Report observed that the reduction in resource sector emissions from 2005 to 2022 was primarily due to the closure of coal mines. Approving new or extended coal mines will likely see a corresponding rise in emissions, particularly in light of the extremely lax regulation of GHG emissions at coal mines discussed above.

On 3 October 2024, the federal analogue to the Commission, the Climate Change Authority, released its *Sector Pathways Review* - a review of the potential technology transition and emissions pathways for six sectors of the economy that best support Australia's transition to net zero emissions by 2050.²⁷ Its sectoral pathway for the resources industry²⁸ set out existing and prospective technologies for decarbonization of the sector, and was informed by published literature where available, as well as views expressed during stakeholder engagement.²⁹ It found that "[d]eclining domestic production of coal and gas will contribute to a reduction in Australia's emissions," and the sectoral pathway sees "output from the fossil fuels subsector declines steadily to 2050, whereas the non-fossil fuels subsector continues to grow".³⁰

That is, there is no credible place for an expanding fossil fuel subsector in the resources sector if Australia is to meet its 2050 emissions reduction commitments. This is also the case in NSW.

The Annual Report was clear in its assessment of the impact that any new coal approvals will have on the rest of the resources sector, and the rest of the economy:

*"Any emissions increases associated with extended or expanded projects would require all other sectors to make greater emissions reductions if the state is to meet its emissions reduction targets"*³¹

²⁵ See 2024 Annual Report, p 46.

²⁶ International Energy Agency, *Net Zero by 2050, A Roadmap for the Global Energy Sector* (October 2021), available at < https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf>; International Energy Agency, *World Energy Outlook 2023* (2023), available at < <https://iea.blob.core.windows.net/assets/86ede39e-4436-42d7-ba2a-edf61467e070/WorldEnergyOutlook2023.pdf> >

²⁷ <https://www.climatechangeauthority.gov.au/sector-pathways-review>

²⁸ Available at <https://www.climatechangeauthority.gov.au/sites/default/files/documents/2024-09/2024SectorPathwaysReviewResources.pdf>.

²⁹ Climate Change Authority, *Sector Pathways Review - Part 1 Resources*, p 5.

³⁰ Climate Change Authority, *Sector Pathways Review - Part 1 Resources*, pp 4-5.

³¹ 2024 Annual Report, p 43.

Continued approval of new and extended coal mines will require greater reductions in the rest of the resources sector, and also require greater reductions in sectors where decarbonization is significantly more difficult, such as agriculture.

This is inconsistent with the polluter pays principle which, as one of the principles of Ecologically Sustainable Development,³² is one of the Guiding Principles of the Net Zero Act.³³

To assist decision-makers to comply with the Net Zero Act and implement the Government's May 2024 direction, the Commission should be formally required to provide advice and recommendations to the decision-maker on all proposed new or expanded coal projects in NSW under section 15(3) of the Net Zero Act.

Recommendation 2: The NSW Net Zero Commission be requested to:

- a. review the NSW Government's legislative and policy framework relating to the assessment and approval of coal projects in NSW; and
- b. recommend action that should be taken by the NSW Government in respect of the assessment and approval of coal projects in NSW to ensure NSW meets its emissions reduction targets, and having regard to the guiding principles of the *Climate Change (Net Zero Future) Act 2023* (NSW).

Recommendation 3: The NSW Net Zero Commission be formally required to provide advice and recommendations to the decision-maker on all applications for new or expanded coal projects in NSW under s 15(3) of the *Climate Change (Net Zero Future) Act 2023* (NSW).

3. Inadequate regulation/control of fugitive methane and other GHG emissions at existing resources, particularly coal, operations

Currently, direct emissions from existing NSW coal mines are not regulated in practice.

Although most newer development consents for coal mines contain a condition that operators implement all reasonable and feasible steps to reduce GHG emissions, in practice this is devolved to a management plan to be approved by the Planning Secretary. To date, despite this requirement the Secretary has routinely approved GHG emission management plans that fail to set out adequate measures to reduce GHG emissions. A desktop review conducted by the Lock the Gate Alliance found that, despite this condition, at most sites GHG emissions are increasing.

In addition, these management plans are rarely updated to require implementation of new technologies, even as these technologies become economically viable and practical to implement to reduce GHG emissions.

³² As described in the *Protection of the Environment Administration Act 1991* (NSW), s 6(2).

³³ See *Climate Change (Net Zero Future) Act 2023* (NSW), s 8(6).

The current approved Management Plans mean that in practice, coal mining proponents are not addressing their GHG emissions despite a condition being imposed on their development consent to minimise their Scope 1 and 2 GHG emissions.

The primary mechanism for pollution control in NSW is the POEO Act, and Environment Protection Licences granted under it. Despite methane being a pollutant capable of regulation under the POEO Act, no NSW EPL for a coal mine contains a direct requirement that methane be monitored or reported on, let alone any conditions limiting or otherwise requiring the reduction of methane emissions.

As fugitive methane emissions from existing coal mines are a significant source of NSW GHG emissions, it is imperative that regulators (and particularly the EPA and the Planning Department) require an immediate ratcheting down of these emissions. If operators are unwilling or unable to meet these limits through currently existing technology, production must be required to be reduced or halted to meet these limits. This is a common requirement under development consents and EPLs in relation to a range of other air pollutants.³⁴

Recommendation 4: The NSW Net Zero Commission be requested to:

- a. review the regulation, compliance and enforcement of direct emissions from existing coal projects in NSW; and
- b. recommend action that should be taken by the NSW Government in respect of the regulation, compliance and enforcement of direct emissions from existing coal projects in NSW to ensure NSW meets its emissions reduction targets, and having regard to the guiding principles of the Climate Change (Net Zero Future) Act 2023 (NSW).

4. Indirect emissions from coal mines and gas projects are relevant to the Net Zero Principles

We cannot comment on the issue of the resources sector and its climate change impacts without raising the issue of indirect emissions, which are overwhelmingly the largest category of emissions from coal and gas projects in NSW. Whether or not these indirect emissions are being released in NSW (and therefore included under the NSW emission reduction target), they add to the atmospheric concentration of GHGs and consequent catastrophic climate change and must be considered by all decision makers.

The guiding principles of the Net Zero Act acknowledge that climate change is a serious threat to the social, economic and environmental wellbeing of NSW. The Net Zero Act requires early action to address climate change to minimise the cost and adverse impacts and consider economic risk of delaying action to address climate change is identified. Continued approvals of fossil fuel

³⁴ See, for example, condition O3.4 of EPL 20850 for the Mt Pleasant Coal Mine, available at <https://app.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=20850&id=20850&option=licence&searchrange=licence&range=POEO%20licence&prp=no&status=Issued>.

projects which will, through both direct and significant indirect emissions of GHG pollutants, contribute to and exacerbate climate change, is inconsistent with these principles.