Submission on Narrabri Underground Coal Mine reassessment

The Narrabri Project would emit 18.4 million tonnes of CO_2e from its operations and the use of its coal would emit 250 million tonnes. This substantial contribution to climate change would harm matters of national environmental significance and so should be refused by the Federal Minister for the Environment, Tanya Plibersek.

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INTRODUCTION

In early November 2022, Federal Environment Minister Tanya Plibersek agreed to reassess 18 fossil fuel projects that had previously been approved under the Environmental Protection and Biodiversity Conservation (EPBC) Act. The reassessment was requested by the Environment Council of Central Queensland (ECoCeQ), represented by the law firm Environmental Justice Australia (EJA).[1]

Major projects, such as gas and coal mines, require approval under the EPBC Act if they impact on matters of national environmental significance, such as World Heritage sites and endangered species. The Act allows for reconsideration of approvals if new information has become available. ECoCeQ and EJA compiled recent research on the impacts of climate change on Matters of National Environmental Significance (MNES),[2]

[1] EJA (2022) *Woodside, Whitehaven plans among 18 major coal, gas proposals Federal Environment Minister will reassess for climate harm*, https://envirojustice.org.au/blog/mediareleases/woodside-whitehaven-plans-among-18-major-coal-gas-proposals-federal-environment-minister-will-reassess-for-climate-harm/

[2] EJA (2022) *Analysis of research on climate change and its impacts on Matters of National Environmental Significance under the EPBC Act*, https://livingwonders.org.au/wp-content/uploads/2022/11/Annexure-2.pdf

and applied for reconsideration of 19 fossil fuel projects on the basis of this new information. The projects are:

- North West Shelf extension (gas)
- Alpha North Coal Mine Project
- Valeria Coal Project
- Saraji East Coal Mine
- Narrabri Coal Mine Expansion
- Meandu Coal Mine Expansion
- Mt Pleasant Coal Mine Expansion
- Baralaba South Coal Mine
- Lake Vermont/Meadowbrook Coal Project
- The Range Coal Mine Expansion
- Caval Ridge Coal Mine – Horse Pit Extension
- Boggabri Coal Mine Expansion
- Australia Pacific LNG – Gas Supply Security Project
- Moorlands Open Cut Coal Mine
- China Stone Coal Mine
- Winchester South Coal Mine
- Spur Hill Underground Coal Mine
- Ensham Coal Mine Expansion
- Styx/Central Queensland Coal Project

The Minister agreed to reassess 18 of these 19 projects. Only the Styx Coal Project is not being reassessed as Minister Plibersek has already indicated her intention to refuse it.[3] This Clive Palmer-backed proposal would mine coal close to the Great Barrier Reef Marine Park and has already been assessed as "not suitable to proceed" by the Queensland State Government.[4] Australia Institute research has shown the Styx project is financially and economically unviable, with major flaws in its assessment documents.[5]

[3] Slezak (2022) *Tanya Plibersek proposes blocking Clive Palmer's Queensland coal mine on environmental grounds*, https://www.abc.net.au/news/2022-08-04/environment-minister-proposes-blocking-palmer-qld-coal-mine/101302142

[4] Queensland Government (2021) *Central Queensland coal project EIS assessment report*, https://www.qld.gov.au/environment/management/environmental/eis-process/projects/completed/central-qld-coal-project#eis-process

[5] Shields and Campbell (2017) *Styx Coal Project: Submission*, https://australiainstitute.org.au/report/styx-coal-project-submission/

The Australia Institute welcomes the opportunity to make submissions on the other 18 projects open for reassessment. All of these projects should be refused. Each project represents significant new sources of greenhouse gas emissions from both their operations (scope 1 emissions) and the end use of the fossil fuels they would produce (scope 3 emissions). These emissions exacerbate climate change which, as abundantly demonstrated in the EJA report, is damaging matters of national environmental significance.

This submission is specifically on the Narrabri Underground Stage 3 Extension, highlighting the impacts of this project and the context of the other projects being considered by the Minister. We have estimated the emissions from the Narrabri project and the other 17 proposals and compare them to the abatement potential of Australia's current main climate policy, the Safeguard Mechanism. Beyond emissions calculations, most of these projects also have other undesirable aspects that strengthen the case for their refusal.

NARRABRI UNDERGROUND STAGE 3 PROJECT

The Narrabri Underground Stage 3 Extension Project would produce an average of 8.4 million tonnes of saleable coal over its 22 year life.[6] This would result in hundreds of millions of tonnes of greenhouse gas emissions, as summarised in Table 1 below:

Table 1: Narrabri Underground Stage 3 Extension Project

State	Proponent	Annual scope 3 emissions (t/CO_2e)	Life of mine scope 3 emissions (t/CO_2e)	Direct emissions annual (t/CO_2e)	Direct emissions total (t/CO_2e)
NSW	Whitehaven	22,727,273	250,000,000	1,670,909	18,380,000

Sources: Whitehaven Coal (2022) Narrabri Stage 3 Amendment report; Jacobs (2021) Air Quality and Greenhouse Gas Assessment; author calculations

The Narrabri project is a particularly emissions intensive mine, with direct emissions of almost 200kg CO_2e per tonne of coal produced, compared to an average across these projects of 70kg. To put Table 1 in context, the Narrabri project alone would have

[6] Note that the project life is 22 years, however much of this overlaps with existing approvals. Based on the production profile in the EIS economic assessment, our estimates are based on a span of 11 years in which the project makes a significant incremental difference to production. See AnalytEcon (2020) *Economic Assessment prepared for Narrabri Coal Operations Pty Ltd*, https://pp.planningportal.nsw.gov.au/major-projects/projects/narrabri-underground-mine-stage-3-extension-project, Figure 2-2.

annual direct emissions of 1.7 million tonnes per year, similar to the Maldives, and annual scope 3 emissions equivalent to Yemen, a country of 31 million people.[7]

Australia Institute research shows that the Narrabri project is uneconomic based on its direct emissions alone at a carbon price of between $24.50/t and $73/t, both of which are well within estimates of the social cost of carbon and existing carbon prices.[8] The project's economic assessment avoided this uncomfortable conclusion by multiplying climate costs by the NSW share of world population, claiming that this represented the cost to NSW and the relevant cost to evaluation of the project.[6] This is clearly contrary to the carbon budgeting approach inherent in the Paris Agreement and Australian climate targets, not to mention the NSW Government's commitment to net zero emissions. It is also contrary to the advice given to the NSW Government on how to incorporate greenhouse gas emissions in cost benefit analysis.[9] Put simply, the costs of the climate impacts of the Narrabri project have not been accurately assessed by the NSW Government or its Independent Planning Commission (IPC).

The proponent, Whitehaven Coal, is a serial environmental offender. Its annual returns show "a litany of environmental licence breaches".[10] It is a company that seems to consider fines for environmental offences as simply a cost of doing business.[11] While the current reconsideration relates mainly to climate impacts, Whitehaven's disregard for environmental conditions also directly places at risk MNES species such as the

[7] Our world in data (2022) *Global greenhouse gas emissions*, https://ourworldindata.org/greenhouse-gas-emissions

[8] Campbell (2022) *Narrabri Underground Mine Stage 3 Extension: Submission to NSW Independent Planning Commission,* https://australiainstitute.org.au/report/narrabri-underground-mine-stage-3-extension/; Campbell (2022) *Narrabri underground – submission on additional material*, https://australiainstitute.org.au/wp-content/uploads/2022/02/P1205a-Narrabri-supplementary-submission-Web.pdf

[9] For just one example see: BIS Oxford Economics (2020) Peer review of economic impact assessment, Tahmoor South Coal Project, https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-8445%2120201218T044925.096%20GMT

[10] Sturmer (2017) *Whitehaven Coal documents showing environmental breaches raise concerns*, https://www.abc.net.au/news/2017-08-04/whitehaven-coal-environment-licence-breaches-raise-concerns/8771156

[11] Bell (2021) *'Slap on the wrist': Farmers fume as Whitehaven Coal fined $200,000 for unlawfully taking water*, https://www.abc.net.au/news/2021-11-25/whitehaven-coal-fined-200-thousand-dollars-for-taking-water/100647354

Glossy Black-Cockatoo which will be impacted by the project. Whitehaven's record was inadequately considered by the NSW IPC.[12]

ALL PROJECTS UNDER REASSESSMENT

The projects being reassessed under the EPBC Act cumulatively represent a major increase in greenhouse gas emissions. Table 2 below estimates these emissions based on documents from proponents and approval authorities.

Table 2: Emissions from 18 fossil fuel projects under reassessment

Project name	State	Proponent	Annual scope 3 emissions (t/CO_2e)	Life of mine scope 3 emissions (t/CO_2e)	Direct emissions annual (t/CO_2e)	Direct emissions total (t/CO_2e)
Narrabri Underground Stage 3 Extension	NSW	Whitehaven	22,727,273	250,000,000	1,670,909	18,380,000
Alpha North	Qld	Warratah Coal	102,168,000	3,065,040,000	2,639,579	79,187,361
Valeria Coal Project	Qld	Glencore	39,732,000	1,390,620,000	989,842	34,644,470
The Range Project	Qld	Stanmore Coal	12,771,000	332,046,000	329,947	8,578,631
Ensham Life of Mine Extension Project	Qld	Idemitsu	11,493,900	103,445,100	315,000	2,835,000
Baralaba South coal mine	Qld	Baralaba Coal Company (AMCI Group)	7,946,400	238,392,000	210,000	6,300,000
Spur Hill Underground Coal Project	NSW	Malabar Coal	16,316,608	407,915,200	431,200	10,780,000
China Stone coal	Qld	Macmines Austasia	97,059,600	4,852,980,000	2,507,600	125,379,988

[12] IPCN (2022) Narrabri Underground Mine Stage 3 Extension Project: Statement of Reasons for Decision, https://www.ipcn.nsw.gov.au/projects/2021/12/narrabri-underground-mine-stage-3-extension-project-ssd-10269

Moorlands Open Cut Coal Mining Project	Qld	Cuesta Coal	4,342,140	130,264,200	119,000	3,570,000
Saraji East Mining Lease Project	Qld	BHP and Mitsubishi	17,009,080	340,181,600	810,000	16,300,000
Winchester South	Qld	Whitehaven Coal	21,852,600	611,872,800	544,413	15,243,567
Lake Vermont Meadowbrook Project	Qld	Bowen Basin Coal	15,088,700	301,774,000	362,942	7,258,841
Mount Pleasant Optimisation Project	NSW	Mach Energy	33,083,000	860,145,000	617,000	16,062,000
Boggabri Mod 8- Increase depth of mining	NSW	Idemitsu	14,912,744	149,127,440	663,000	6,630,000
Meandu Mine King 2 East	Qld	Stanwell	13,524,489	202,867,335	97,000	1,455,000
Caval Ridge Mine Horse Pit Extension 2021/9031	Qld	BMA	14,892,569	461,669,639	371,200	11,507,200
North West Shelf	WA	Woodside	80,190,000	4,009,500,000	2,562,000	128,100,000
Gas Supply Security Project - APLNG	Qld	ConocoPhilips, Origin, Sinopec.	1,077,286	53,864,309	3,386,040	169,302,000
Totals			**526,187,389**	**17,761,704,623**	**18,626,672**	**661,514,058**

Sources: Company and government approval documents. Where emissions estimates not provided, these have been estimated based on production estimates – see appendix.

As shown in Table 2 these projects would cumulatively produce fossil fuels that would create 17.8 billion tonnes of carbon pollution. For context, world emissions in 2021 were 29.6 billion tonnes.[13] The direct emissions from the operation of these projects combined would reach 662 million tonnes, more than all of Australia's annual emissions.

[13] Our world in data (2022) *Annual CO2 emissions by world region*, https://ourworldindata.org/grapher/annual-co-emissions-by-region, excludes land use change.

Not all of these projects will go ahead. Some have stalled in their development for many years, for example Spur Hill and The Range coal projects have been on hold since 2014. But Australia cannot rely on the changing priorities of project proponents to avoid large increases in emissions. These projects should be refused due to the damage their huge scope 1 and scope 3 emissions would cause to MNES.

It is important to consider these projects in the context of the aims of wider climate policy. Australia's climate policy is centred on the Safeguard Mechanism – a framework designed specifically to address Australia's growing industrial emissions. This policy is aiming to achieve cumulative abatement of 170 million tonnes between 2022 and 2030.[14] It is clear from Table 2 that any abatement by the Safeguard Mechanism could be swamped by these new fossil fuel projects – which are just 18 of 114 new projects in development. Previous Australia Institute research has shown that just two gas projects and the 22 coal projects currently seeking EPBC approval are projected to emit almost 120 million tonnes of carbon pollution to 2030, more than Australia's annual output.[15] Further challenges include:

- The carbon budget for the Safeguard Mechanism is currently shared by the 212 facilities covered under the scheme. However, if new projects emitting more than 100,000 tonnes CO2e annually begin operating before 2030, the carbon budget must either be shared amongst a larger number of facilities (forcing steeper and more expensive emissions reduction requirements on existing facilities) or greater emissions reduction efforts will be needed from other sectors of the economy.
- The Australian Government has not definitively answered how it plans to address the emissions from new gas and coal projects. It also remains unclear how the reformed Safeguard Mechanism will deal with new entrants. The recent consultation paper makes no mention of limiting new entrants or how they will be managed. All but one of the projects listed above will be covered by the Mechanism on the basis of their scope 1 emissions.[16]
- Even if new entrants to the Safeguard Mechanism are required to offset 100% of their emissions, the mechanism only ever addresses scope1 emissions (requiring them to be reduced or offset with emissions intensity credits or

[14] RepuTex Energy (2022) *Potential futures for Australia's Safeguard Mechanism*, https://carbonmarketinstitute.org/app/uploads/2022/06/Potential-futures-for-Australias-Safeguard-Mechanism.pdf

[15] Hemming et al (2022) *Trade with no cap: Submission to draft legislation for Safeguard Mechanism Credits*, https://australiainstitute.org.au/report/trade-with-no-cap/

[16] The only exception is the Meandu Mine. However, this mine produces coal directly and exclusively for the Tarong Power Station which is covered by the Safeguard Mechanism. Both mine and power station are owned by Queensland's publicly owned Stanwell Corporation.

Australian Carbon Credit Units). The remainder of emissions from an entity are unaddressed meaning the net result is an increase in total emissions.

- The credits used to offset emissions are also in question:
    - Potential introduction of Safeguard Mechanism Credits builds an opportunity for high-polluting facilities to exploit their baselines and potentially creates perverse incentives for facilities considering closure and for potential new entrants in establishing high-emitting projects.
    - Australia's existing carbon credit system is deeply flawed and riddled with integrity problems.[17]

Put simply, Australia's climate targets cannot be achieved if projects such as the 18 being reconsidered proceed. The Safeguard Mechanism is not able to deal with large new polluters and even if offsets at these volumes were available, their integrity would be dubious to say the least.

CONCLUSION

The International Energy Agency (IEA) Executive Director Fatih Birol warned in 2021 that "If governments are serious about the climate crisis, there can be no new investments in oil, gas and coal, from now – from this year".[18]

Not only are new fossil fuel projects disastrous for the climate, and therefore matters of national environmental significance, they are simply not needed – existing mines are able to cover forecast demand in the medium to long term. For example, Australia Institute research in 2021 found that mines in the Upper Hunter Valley were producing 91.5 million tonnes under their approved capacity.[19] Multiple studies have shown that fossil fuel production can be phased out with minimal economic impact. According to the Reserve Bank of Australia:

> Based on emission scenarios consistent with [net zero] commitments, we find that Australia's coal exports could decline significantly by 2050, with a more modest effect likely for liquefied natural gas exports; both may be offset to

[17] Hemming et al (2022) *Trade with no cap: Submission to draft legislation for Safeguard Mechanism Credits*, https://australiainstitute.org.au/report/trade-with-no-cap/

[18] Harvey (2021) *No new oil, gas or coal development if world is to reach net zero by 2050, says world energy body*, https://www.theguardian.com/environment/2021/may/18/no-new-investment-in-fossil-fuels-demands-top-energy-economist

[19] Campbell and Carter (2021) *Mind the gaps: Unused capacity and unfunded rehabilitation in Upper Hunter coal mines*, https://australiainstitute.org.au/report/mind-the-gaps/

> some degree by increases in green energy exports. The effect on overall Australian GDP is expected to be relatively small and gradual.[20]

Similarly, NSW Treasury modelled a phase out of coal production by 2042 finding that the state's economic output would be just 0.9% lower in 2041 than a reference case where coal exports continued indefinitely.[21] The Australia Institute made similar estimates five years earlier.[22]

An end to new fossil fuel projects is good climate policy, good economic policy and would protect Australia's matters of national environmental significance. We urge the refusal of the Narrabri Underground Project and all other projects being reconsidered under the EPBC Act.

APPENDIX

Estimation of scope 3 emissions from production figures

Where published estimates of scope 3 emissions are not available, we have estimated project emissions based on:

- Coal production volume.
- The likely energy content of product coal, based on Department of Industry, Science, Energy and Resources (2021) *Guide to the Australian Energy Statistics*.
- Energy to emissions factors for coal based on IPCC (2006) *Guidelines for National Greenhouse Gas Inventories - Volume 2 Energy*.

For a full explanation and worked examples of this methodology see Ogge et al (2021) *Undermining Climate Action: The Australian Way*, available at https://australiainstitute.org.au/report/undermining-climate-action/

[20] Kemp et al (2021) *Towards Net Zero: Implications for Australia of Energy Policies in East Asia*, https://www.rba.gov.au/publications/bulletin/2021/sep/towards-net-zero-implications-for-australia-of-energy-policies-in-east-asia.html#fn0

[21] Wood et al (2021) *The sensitivity of the NSW economic and fiscal outlook to global coal demand and the broader energy transition for the 2021 NSW Intergenerational Report*, https://www.treasury.nsw.gov.au/sites/default/files/2021-05/2021_igr_ttrp_-_the_sensitivity_of_the_nsw_economic_and_fiscal_outlook_to_global_coal_demand_and_the_broader_energy_transition_for_the_2021_nsw_intergenerational_report.pdf

[22] Denniss et al (2016) *Never gonna dig you up!: Modelling the economic impacts of a moratorium on new coal mines,* https://australiainstitute.org.au/report/a-coal-moratorium-and-the-australian-economy/

Estimation of direct emissions from production figures

Where published estimates of direct emissions are not available, we have estimated project emissions based on the average emissions intensity of production for mines that have published emissions estimates. The 27 mines included in other Australia Institute research would produce 257 million tonnes of coal each year and 18.6 million tonnes of emissions, for an average of 0.07 tonnes of CO2e per tonne of coal produced.

See Hemming et al (2022) *Trade with no cap: Submission to draft legislation for Safeguard Mechanism Credits*, https://australiainstitute.org.au/report/trade-with-no-cap/