

## Boggabri Coal Mod 8 submission

Nic Clyde  
9 September 2021

Thank you for the opportunity to make a submission on this modification. I oppose MOD 8 and urge NSW DPIE and the NSW Planning Secretary to refuse consent.

### 1. Summary of key points

1. NSW DPIE's public position on Scope 1 and 2 GHG emissions is not consistent with approval of MOD 8 as proposed.
2. The NSW IPC determined on 31 August 2021 that the Hume Coal mine in NSW (with a smaller GHG footprint than MOD 8) should not proceed, in part because the GHGs "are not justified" and "would result in intergenerational inequity".
3. Idemitsu's current Scope 1 and 2 GHG management plan is not fit for purpose: it has failed to reduce emissions and emissions intensity at the existing mine.
4. Idemitsu claims that MOD 8 Scope 1 and 2 GHG emissions will be "*essentially equivalent*" to current operations, but the GHG Assessment reveals that on average, emissions will more than triple. Scope 1 and 2 emissions at the mine over the last five years have averaged about 0.2 Mt CO<sub>2</sub>-e per year. The GHG Assessment of MOD 8 (pg 57) says that over the lifetime of the project, "from 2022 to 2042, the Scope 1 and 2 emissions are estimated to average 0.69 Mt CO<sub>2</sub>-e per year."
5. No credible plan has been proposed to minimise Scope 1 and 2 GHG emissions of MOD 8.
6. Fugitive emissions will become a huge problem: a proposed increase in fugitive emissions would be largely responsible for a tripling or more of Scope 1 emissions.
7. The increase in Scope 1 GHGs is big enough to propel Boggabri Coal from 23rd on a list of 28 coal mines in NSW producing more than 100,000 t CO<sub>2</sub>-e in Scope 1 GHGs in 2019-20, to 5th (2nd most polluting open cut mine).
8. The UN says that three of the four countries which currently buy coal from this mine need to stop burning coal by 2030.
9. If MOD 8 is approved, Scope 1 and 2 GHG emissions from recently approved coal and gas projects will add **95.18 Mt CO<sub>2</sub>-e** to the NSW inventory, cancelling out all and more of the 90 Mt CO<sub>2</sub>-e savings of the Electricity Infrastructure Roadmap. They will also work against the NSW Government's policy goal to cut NSW's emissions by 35% by 2030.
10. The NSW Government has a policy goal to "*reduce the greenhouse gas emissions directly associated with coal mining in NSW (fugitive emissions)*". Adding 5.71 Mt of

new and additional Scope 1 emissions (mostly fugitive methane), with no credible plan to mitigate any of it, cannot be consistent with this goal.

## A NOTE ON YOUR ROLE AS AN EMPLOYEE OF NSW DPIE

*"All NSW Government sector employees are required to behave in ways that are ethical, lawful and build trust in the sector."<sup>1</sup>*

I am asking you - the person who is reading this submission - to consider what the sentence above means and to look for and exercise every option within your means to ensure maximum scrutiny of this project.

I hope this submission helps equip you with reasons to recommend that this project is **refused** consent.

### Would your decision to recommend refusal be ethical?

Yes, it very clearly would be. UN Secretary-General Antonio Guterres has urged world leaders to declare states of "climate emergency" in their countries to spur action to avoid catastrophic global warming. The International Energy Agency says no new fossil fuel projects can be built if we are to retain a safe climate. The Federal Court of Australia declared - in the Sharma decision - that action by adults that worsen global climate change "might fairly be described as the greatest intergenerational injustice ever inflicted by one generation of humans upon the next." Refusal is clearly the ethical pathway.

### Would your decision to recommend refusal be lawful?

Yes, it very clearly would be. The Land and Environment Court of NSW has affirmed that the NSW IPC's refusal of the Bylong Coal project - partly on climate grounds - was lawful and consistent with current NSW policy. The NSW IPC says that it makes its decisions on coal projects "in accordance with relevant legislation and policy". On 31 August 2021, the NSW IPC refused consent for the Hume Coal mine, and in doing so, stated that 107 Mt GHG emissions "are not justified" and "would result in intergenerational inequity". This clearly means that refusal of Boggabri MOD 8 could be consistent with relevant legislation and policy.

### Would your decision to recommend refusal build trust?

Yes, it would. Voters in every federal seat in Australia support increased action on climate change and the adoption of renewable technology, according to the largest poll ever conducted on climate change and politics in the country. "The survey of 15,000 Australians conducted by YouGov on behalf of the Australian Conservation Foundation found 67 per cent of voters believed the government should be doing more to address

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<sup>1</sup> Behaving Ethically, Your manual on ethical behaviour as a NSW public sector employee, <https://www.psc.nsw.gov.au/culture-and-inclusion/workplace-culture/behaving-ethically>

climate change, including a majority in all 151 national seats.”<sup>2</sup> With everyone from the United Nations to the Australian Academy of Science to the IEA calling for no new coal projects to be approved, a decision to recommend refusal would be entirely aligned with the science and community expectations. This is especially true in this moment: a) in the lead up to the Glasgow COP 26 summit; and b) in the wake of Justice Preston’s finding in the Land and Environment Court recently [Bushfire Survivors for Climate Action Incorporated v Environment Protection Authority] that the NSW EPA has failed to take action required by law to mitigate climate change.

## 2. Background

BCM is an open cut coal mine that has been operating since 2006. MOD 8 proposes to mine an extra 61.6 Mt coal to be recovered over an extra 6 years. An unknown proportion of the coal is proposed for power generation (thermal), with the balance being available for steel-making (semi-soft coking coal and pulverized coal injection - PCI).<sup>3</sup>

## 3. NSW DPIE’s public position on Scope 1 and 2 GHG emissions is not consistent with approval of MOD 8 as proposed

NSW DPIE’s public position is that the department “*enforces strict conditions on mining companies to ensure Scope 1 and Scope 2 emissions [related to the extraction and transport of fossil fuels] are minimised throughout the mine’s life cycle*”.<sup>4</sup> As this submission demonstrates, no plan has been proposed to minimise and reduce GHG emissions through this mine’s life cycle. They are projected to increase substantially and then remain steady - at a substantially elevated level - for the duration of mining until operations start to wind down around 2037. In regard to mining at the existing operation, no measurable minimisation of Scope 1 and 2 GHGs has occurred.

## 4. The NSW IPC determined on 31 August 2021 that a coal mine in NSW with a smaller GHG footprint than MOD 8 should not proceed, in part because the GHGs “are not justified” and “would result in intergenerational inequity”.

The NSW IPC found that the 106.7 Mt CO<sub>2</sub>-e of GHG emissions from the Hume Coal mine “are not justified” and “would result in intergenerational inequity”. MOD 8’s GHG footprint would be significantly larger than Hume Coal’s. Summing up the Commission’s findings and determination on the Hume Coal project, the following statements were made about GHG emissions:

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<sup>2</sup> SMH, Nick O’Malley and Miki Perkins, August 30, 2021 Australia’s biggest climate poll shows support for action in every seat, <https://www.smh.com.au/environment/climate-change/australia-s-biggest-climate-poll-shows-support-for-action-in-every-seat-20210829-p58mwb.html>

<sup>3</sup> 210722 Boggabri MOD8 ModReport Part 1, pg 11

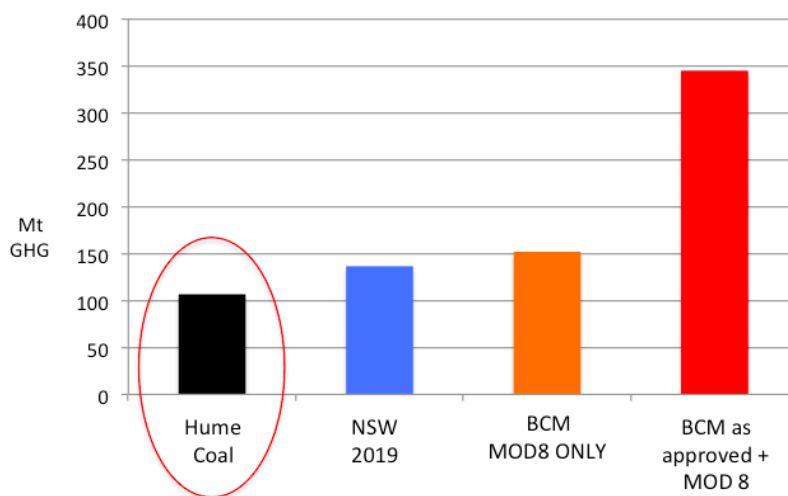
<sup>4</sup> Peter Hannam, SMH, August 12, 2021, Defunct NSW coal mine belches 1 million tonnes of CO<sub>2</sub> without penalty

- *“the Project would be a new net-emitter of GHG emissions. When weighed against the relatively minor economic benefits of the Project, the GHG emissions are not justified” (pg 61)*
- *“The Commission notes that GHG emissions of the Project would result in intergenerational inequity. While there would be relatively minor economic contribution being realised during the life of the mine, the adverse impacts of climate change are likely to extend well beyond that timeframe.” (pg 60)*

In the context of the Commission’s findings above about Hume Coal, it is worth noting that the economic assessment for MOD 8 puts the ‘net social benefits’ of MOD 8 at \$293M for Australia and \$240M for NSW.<sup>5</sup> Hume Coal’s NPV - although disputed - was estimated at a near identical \$290M.<sup>6</sup> The IPC found that this “minor economic contribution” of the Hume Coal project weighed against approval when considered in light of the damaging GHG emissions.

Additional GHG emissions from MOD 8 at 152 Mt CO<sub>2</sub>-e (life of modification) would be larger than Hume Coal’s emissions and greater than those produced by the entire NSW economy in 2019. Emissions from existing approved operations together with the additional 152 Mt CO<sub>2</sub>-e from MOD 8 would combine to result in an estimated 344.7 Mt CO<sub>2</sub>-e.

**Figure 1: comparison of Hume Coal’s GHGs (refused) to MOD 8 (proposed)**



**5. Idemitsu’s current Scope 1 and 2 GHG management plan is not fit for purpose: it has failed to reduce emissions and emissions intensity at the existing mine**

### **5.1 The GHG management plan promises to “continue to minimise”**

Boggabri Coal Operations Pty Ltd proposes to:

<sup>5</sup> Gillespie Economics, Economic Assessment, pg 22, [https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=MP09\\_0182-MOD-8%2120210722T054605.041%20GMT](https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=MP09_0182-MOD-8%2120210722T054605.041%20GMT)

<sup>6</sup> NSW IPC, Point 294, Hume Coal SoR

*“continue to minimise its greenhouse gas emissions in accordance with the measures described within its Air Quality and Greenhouse Gas Management Plan. These include, improving operational efficiencies to minimise diesel usage, regular maintenance of plant and equipment, use of appropriate equipment in consideration of energy efficiency and the training of staff on continuous improvement strategies focussed on enhancing energy efficiencies of its operations.”<sup>7</sup>*

*“Further to the above, Boggabri Coal Operations Pty Ltd has committed to commissioning a Greenhouse Gas Minimisation Study to assess the existing measures and to identify any further reasonable and feasible measures to further minimise direct greenhouse gas emissions from the site. Boggabri Coal Operations Pty Limited will also continue to monitor and report on its direct greenhouse gas emissions and compare against the forecast emissions from the Air Quality and Greenhouse Gas Assessment. Where actual emissions are identified to be greater than the forecast emissions within this Modification Report, Boggabri Coal Operations Pty Limited will consult with Department of Planning, Industry and Environment in relation to the appropriate mechanism to offset these additional emissions.”<sup>8</sup>*

## **5.2 Annual Review data reveals that there is no minimisation of GHG management on site with no GHG improvement evident in the environmental performance of the project**

Over the last five years, Idemitsu has failed to demonstrate that they are capable of improving the environmental performance of their mine when it comes to GHG minimisation. Section 24 of the current conditions of consent requires the implementation of “all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Secretary.” Schedule 5 3. (f) requires a “program to investigate and implement ways to improve the environmental performance of the project over time”.

As the information in Table 1 below confirms, there has been no improvement in the management of GHG emissions over the last five years of operation. The Scope 1 and 2 emissions intensity of ROM coal mined has remained steady at around 0.025 - 0.027 t CO<sub>2</sub>-e per tonne of ROM coal mined (i.e., there has been no improvement; no lessening of GHG intensity). There is a very slight improvement in 2019/20 emissions over a particularly emissions intensive 2018/19, but there is no discernible downward trend and as the proponent’s own projections (see below) demonstrate, these are in fact expected to trend significantly upwards. In regard to fugitive emissions, Idemitsu expects a very dramatic rise, with no mitigation measures proposed. They do pledge to study the issue further, however it should be noted that this commitment is made in the context of seeking an approval that seeks a legal mandate to dramatically increase Scope 1 and 2 emissions.

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<sup>7</sup> Appendix G, Air Quality and Greenhouse Gas Assessment, pg 57

<sup>8</sup> 210722 Boggabri MOD8 ModReport\_Part 1, Pg 22

**Table 1: Lock the Gate's analysis of GHG management at the Boggabri Coal Mine**

Boggabri Coal	2015/16	2016/17	2017/18	2018/19	2019/20
Scope 1 (tCO <sub>2</sub> -e)	190,606	183,750	177,065	203,082	174,391
Scope 1 diesel	185,251	185,251	171,378	197,209	169,508
Scope 1 fugitive	5,355	5,355	5,573	5,869	4,879
Scope 2 (tCO <sub>2</sub> -e)	19,585	19,190	17,991	18,647	16,865
Total (Scope 1 and 2)	210,191	202,940	195,056	221,729	191,256
ROM coal production	7,800,000	8,000,000	7,900,000	7,400,000	7,500,000
Emissions intensity per t ROM coal	0.027	0.025	0.025	0.030	0.026

**6. Idemitsu claim that MOD 8 Scope 1 and 2 GHG emissions will be “essentially equivalent” to current operations, but the GHG Assessment reveals that on average, emissions will more than triple**

The ‘Modification Report’ states:

*“Scopes 1, 2 and 3 greenhouse gas emissions for MOD 8 were quantified within the Air Quality and Greenhouse Gas Impact Assessment completed by Jacobs. This assessment identified the annual Scope 1 and 2 emission rates for MOD 8 will be essentially equivalent to those generated from existing operations continuing for a further six years from 2033 to 2039.”<sup>9</sup>*

From Table 2 below you can see that Scope 1 and 2 emissions at the mine over the last five years have averaged about 0.2 Mt CO<sub>2</sub>-e per year. The GHG Assessment of MOD 8 (pg 57) says that over the lifetime of the project, “from 2022 to 2042, the Scope 1 and 2 emissions are estimated to average 0.69 Mt CO<sub>2</sub>-e per year.” The MOD 8 Scope 1 and GHG emissions are not “essentially equivalent” to emissions generated per annum at the Boggabri Coal mine. **They are more than triple current Scope 1 and 2 emissions.** To demonstrate the scale of increase, the last five years of operations have been contrasted with three years of emissions projected forward from 2022 to 2024 in Figure 1 below.

**Table 2: Scope 1 and 2 GHG emissions at Boggabri**



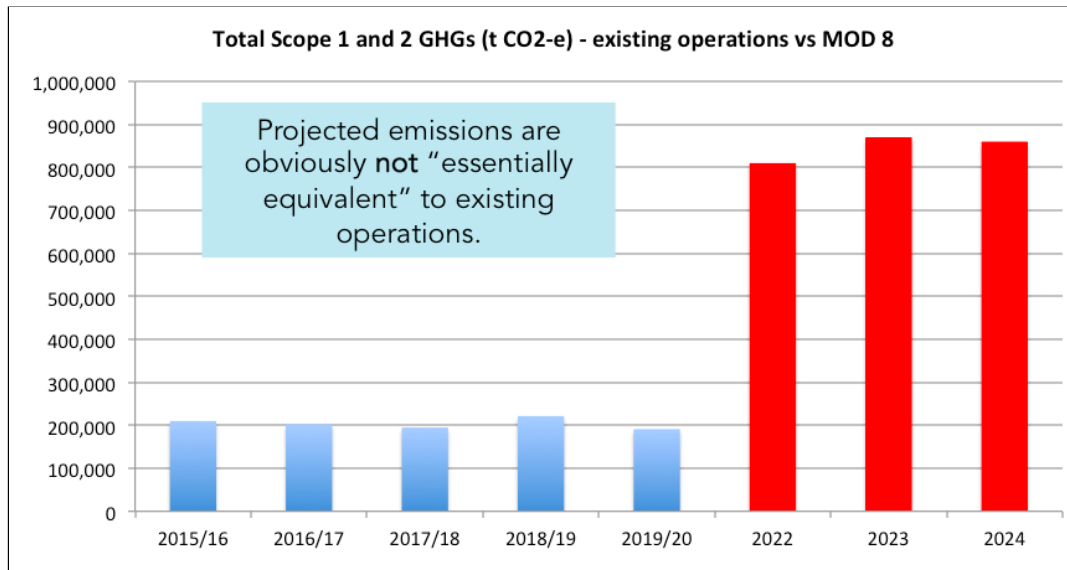
Annual Review 2020

**Table 6-19 BCOPL GHG and Energy Statistics**

GHG/Energy	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Scope 1 (t CO <sub>2</sub> -e)	190,606	183,750	177,065	203,082	174,391
Scope 2 (t CO <sub>2</sub> -e)	19,585	19,190	17,991	18,647	16,865
Total Scope 1 and Scope 2 (t CO <sub>2</sub> -e)	210,191	202,940	195,056	221,729	191,256

<sup>9</sup> [210722 Boggabri MOD8 ModReport\\_Part 1](#), pg iv

**Figure 1: Scope 1 and 2 GHGs at Boggabri - last 5 years vs projected for 2022-24**



**Table 3: GHG emissions intensity per t of ROM coal mined will triple to quadruple**

Boggabri Coal	2015/16	2016/17	2017/18	2018/19	2019/20	2022	2023	2024
Scope 1 (tCO2-e)	190,606	183,750	177,065	203,082	174,391	740,000	810,000	800,000
Scope 1 diesel	185,251	185,251	171,378	197,209	169,508			
Scope 1 fugitive	5,355	5,355	5,573	5,869	4,879			
Scope 2 (tCO2-e)	19,585	19,190	17,991	18,647	16,865	70,000	60,000	60,000
Total (Scope 1 and 2)	210,191	202,940	195,056	221,729	191,256	810,000	870,000	860,000
ROM coal production	7,800,000	8,000,000	7,900,000	7,400,000	7,500,000	8,600,000	8,900,000	8,000,000
Emissions intensity per t ROM coal	0.027	0.025	0.025	0.030	0.026	0.094	0.098	0.108

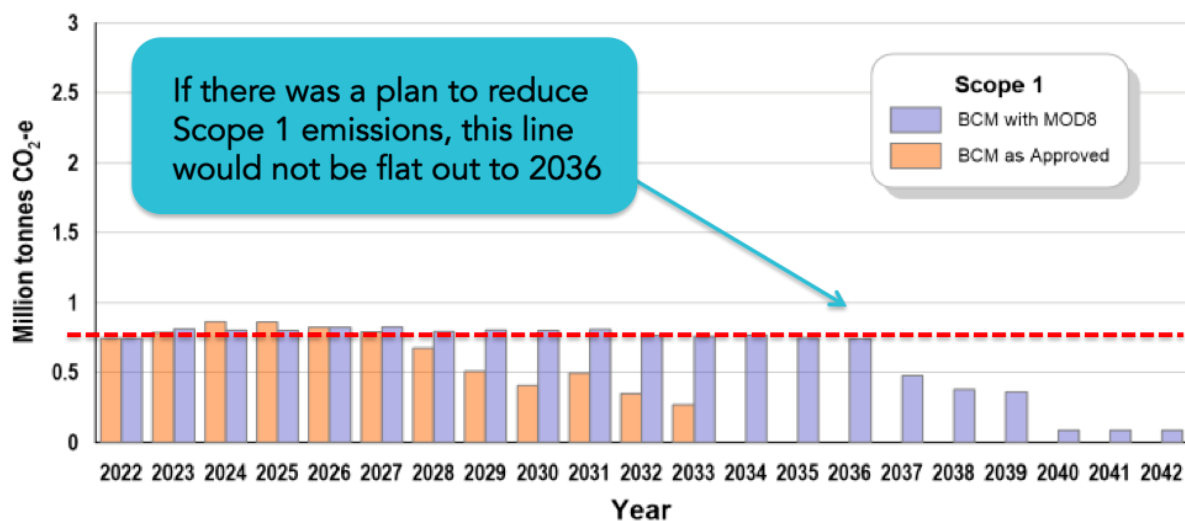
## 7. No credible plan has been proposed to minimise Scope 1 and 2 GHG emissions of MOD 8

It is quite clear from Figure 34 in the GHG assessment that there is no plan to minimise Scope 1 and 2 emissions from this development for the next 16 years of operation. Their own modelling indicates that levels of Scope 1 and 2 will remain near constant - at a level on average triple that of the current operation - until about 2037. At this time, they do start to reduce, but that is because the level of ROM coal mining winds down as the project nears closure.

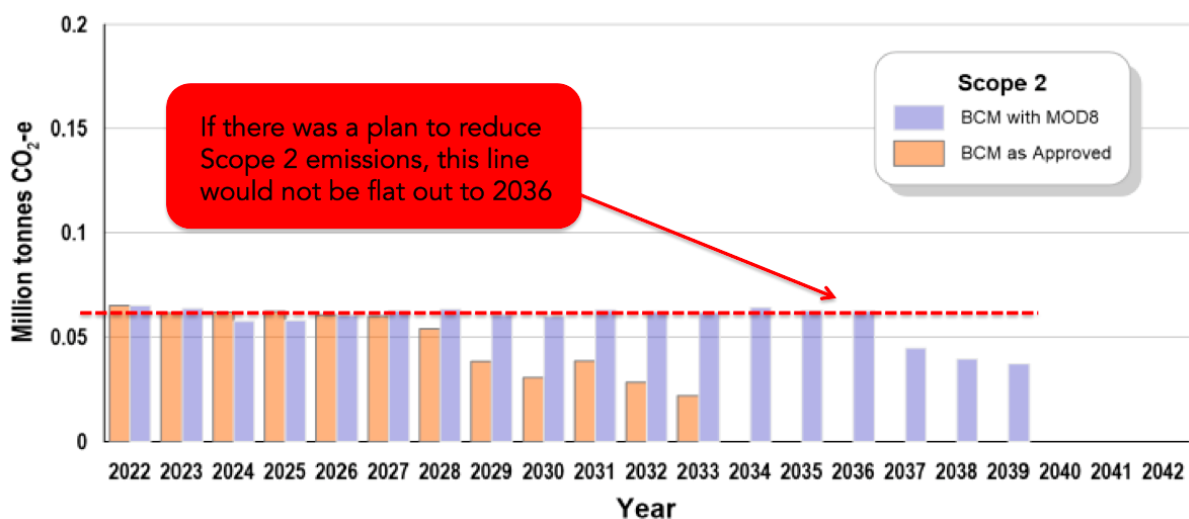
An 'offer' to NSW DPIE is made in the main report "*where actual emissions are identified to be greater than the forecast emissions within this Modification Report*", that Boggabri Coal will attempt to "*offset these additional emissions.*" It should be noted by NSW DPIE that this proponent plans to triple (even quadruple) Scope 1 and 2 emissions above current levels, has no meaningful plan to minimise predicted emissions from this substantially larger footprint and does not propose to offset any of the substantial predicted emissions. The offset 'offer', according to Idemitsu, will only be triggered when / if Scope 1 and 2 emissions are even greater than triple or quadruple current levels, and even then, only the small fraction of emissions above this level are proposed to be offset. This is completely unacceptable.



**Figure 2: Scope 1 GHG projections MOD 8**



**Figure 3: Scope 2 GHG projections MOD 8**



## 8. Fugitive emissions will become a huge problem

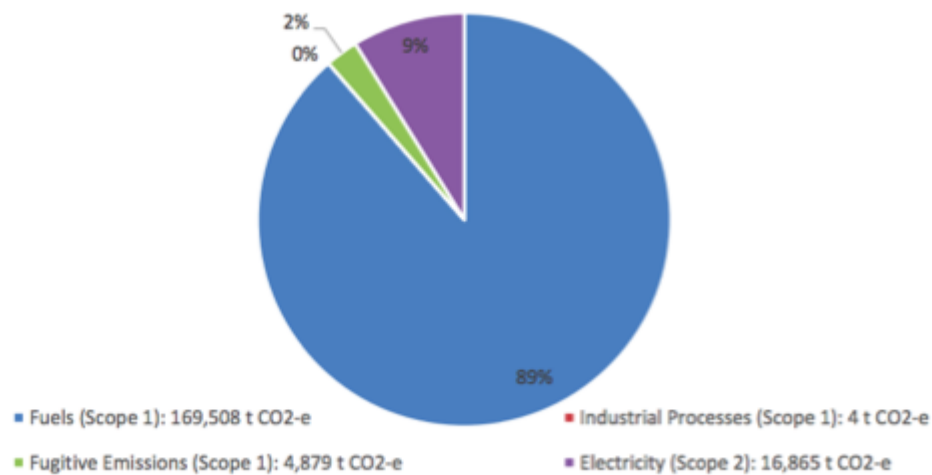
The GHG assessment states that for MOD 8, “*fugitive emissions from coal extraction would be the most significant direct (Scope 1) emissions*”.<sup>10</sup> This statement underplays the significance of fugitive emissions to the environmental impact of this modification. In 2019/20, fugitive emissions – at 4,879 t CO<sub>2</sub>-e - were less than 3% of all Scope 1 emissions at the existing mine, whilst diesel emissions comprised 97% of Scope 1 emissions at 169,508 t CO<sub>2</sub>-e. With the modification, the level of fugitive methane emissions is set to grow dramatically (see Figure 4 below). Although fugitive emissions do not appear to be broken down as a precise proportion of Scope 1 emissions going forward, it is clear that a radical change is projected for the emissions profile of this mine.

<sup>10</sup> Appendix G, Air Quality and Greenhouse Gas Assessment, pg 57



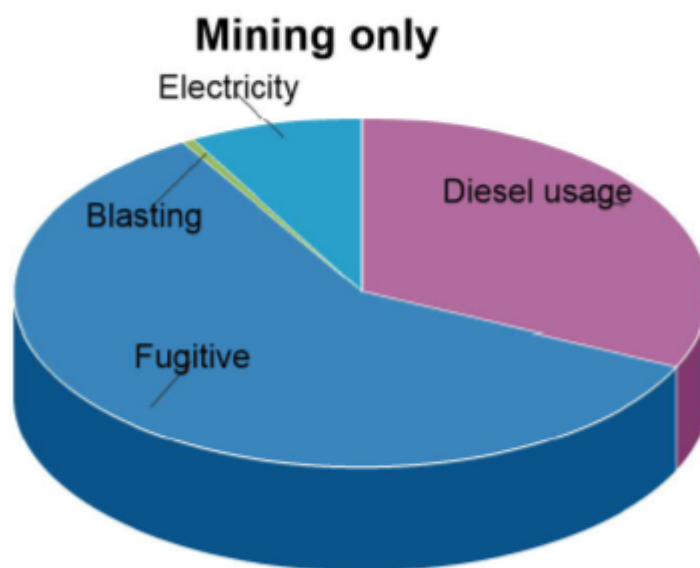
**Figure 4: with MOD 8, fugitive emissions become the dominant Scope 1 emissions**

**Scope 1 and 2 emissions at the current mine**



Source: Boggabri Coal Mine, 2020 Annual Review, 3 August 2021, pg 68

**Scope 1 and 2 emissions - MOD 8**



Source: Figure 33, AQ & GHG Assessment, pg 58

**9. The increase in Scope 1 GHGs is big enough to propel Boggabri Coal from 23rd a list of 28 coal mines in NSW producing more than 100,000 t CO2-e in Scope 1 GHGs in 2019-20, to 5th (2nd most polluting open cut mine)**

As Table 3 demonstrates, this modification would radically change the place on the Clean Energy Regulator's table of most Scope 1 polluting coal mines in NSW. The proponent must explain why the market should not be supplied with coal from less polluting mines, which are

able to produce similar product coal but with significantly lower emissions intensity per tonne of ROM coal mined.

**Table 4: Scope 1 GHGs from NSW coal mines in 2019/20 (CER Safeguard facility data)**

Ranking	Facility name	State	Responsible emitter	2019-20
1	APN01 Appin Colliery - ICH Facility	NSW	ENDEAVOUR COAL PTY LIMITED	2,167,030
2	Tahmoor Coal Mine	NSW	TAHMOOR COAL PTY LTD	1,238,774
3	Mandalong Mine	NSW	CENTENNIAL MANDALONG PTY LIMITED	1,160,613
4	Maules Creek Open Cut Mine	NSW	MAULES CREEK COAL PTY LTD	840,834
	<b>Boggabri Coal Mine - 2023 projection - Scope 1 GHGs</b>			<b>810,000</b>
5	Warkworth Mine	NSW	COAL & ALLIED INDUSTRIES LIMITED	797,201
6	Bulga Coal Complex	NSW	BULGA COAL MANAGEMENT PTY LIMITED	747,505
7	Integra Underground Mine		HV COKING COAL PTY LIMITED	601,244
8	Hunter Valley Operations mine	NSW	HV OPERATIONS PTY LTD	562,470
9	Wambo Coal Mine	NSW	WAMBO COAL PTY LIMITED	562,468
10	Bengalla Operations	NSW	BENGALLA MINING COMPANY PTY LIMITED	538,857
11	HVY01 Hunter Valley Energy Coal - CCL Facility		HUNTER VALLEY ENERGY COAL PTY LTD	538,610
12	Metropolitan Colliery	NSW	METROPOLITAN COLLIERIES PTY. LTD.	526,527
13	Narrabri Underground Mine	NSW	NARRABRI COAL OPERATIONS PTY LTD	507,061
14	Chain Valley Colliery	NSW	DELTA ELECTRICITY PTY LTD	503,212
15	Myuna Colliery	NSW	CENTENNIAL MYUNA PTY LIMITED	460,834
16	Mount Pleasant Operations	NSW	MACH ENERGY AUSTRALIA PTY LTD	448,683
17	Glendell	NSW	MT OWEN PTY LIMITED	335,246
18	Ravensworth Operations		RAVENSWORTH OPERATIONS PTY LIMITED	291,655
19	Ashton Coal Mine		ASHTON COAL OPERATIONS PTY LIMITED	196,641
20	Dendrobium Colliery		DENDROBIUM COAL PTY LTD	188,028
21	Russell Vale Colliery	NSW	Wollongong Coal	182,578
22	Liddell Coal Mine		LIDDELL COAL OPERATIONS PTY. LIMITED	174,805
23	Boggabri Coal Minesite		BOGGABRI COAL PTY LIMITED	174,391
24	Moolarben Coal Mine (Open Cut & Underground)	NSW	MOOLARBEN COAL OPERATIONS PTY LTD	166,280
25	Ravensworth Underground Coal Mine	NSW	RESOURCE PACIFIC PTY LIMITED	155,307
26	Wilpinjong Coal Mine	NSW	WILPINJONG COAL PTY LTD	138,594
27	Mangoola	NSW	MANGOOLA COAL OPERATIONS PTY LIMITED	123,435
28	Dartbrook Coal Mine	NSW	AQC DARTBROOK MANAGEMENT PTY LTD	112,089

## 10. The UN says that three of the four countries which currently buy coal from this mine need to stop burning coal by 2030

BCM coal is sold to Japan, South Korea, Netherlands and Malaysia (pg 60 AQ and GHG Assessment, Jacobs). The UN says that OECD countries need to phase out thermal coal by 2030.<sup>11</sup> Japan, South Korea and the Netherlands are OECD countries.

<sup>11</sup> ANU Newsroom, 6 SEPTEMBER 2021, UN's top climate adviser says Australia must phase out coal, <https://www.anu.edu.au/news/all-news/un%E2%80%99s-top-climate-adviser-says-australia-must-phase-out-coal>

**11. If MOD 8 is approved, newly approved Scope 1 and 2 GHG emissions from coal and gas projects in NSW will add 95.18 Mt CO<sub>2</sub>-e to the NSW inventory, cancelling out all and more of the 90 Mt CO<sub>2</sub>-e savings of the Electricity Infrastructure Roadmap. They will also work against the NSW Government's policy goal to cut NSW's emissions by 35% by 2030.**

Scope 1 and 2 GHG emissions from 7 new coal projects and 1 new gas project approved by the NSW IPC since March 2018 would almost cancel out savings in GHGs projected from the NSW Government's Electricity Infrastructure Roadmap (89 Mt of new Scope 1 and 2 emissions vs 90 Mt of savings). Approval of MOD 8 will take new emissions to be added to the NSW economy to 95.18 Mt CO<sub>2</sub>-e, more than cancelling out Minister Kean's gains.

**Table 5: Calculated change in total CO<sub>2</sub>-e with Modification 8**

	Change with Modification 8 (t CO <sub>2</sub> -e)			
	Scope 1	Scope 2	Scope 3	Total of Scope 1, 2 and 3
Total (2022 to 2042)	5.71	0.47	146.22	152.40

**Table 6: MOD 8 GHGs in comparison to cumulative GHGs from fossil fuel projects determined to date in NSW by the NSW IPC**

Project	Determination	Date	Total Scope 1 GHG (Mt CO <sub>2</sub> -e)	Total Scope 2 GHG (Mt CO <sub>2</sub> -e)	Total Scope 3 GHG (Mt CO <sub>2</sub> -e)	Total GHGs - life of project (Mt CO <sub>2</sub> -e)
<b>Boggabri MOD 8</b>	<b>?</b>	<b>?</b>	<b>5.71</b>	<b>0.47</b>	<b>146.22</b>	<b>152.4</b>
<b>Hume Coal</b>	<b>Refused</b>	<b>31/8/21</b>	<b>0.2</b>	<b>1.6</b>	<b>104.9</b>	<b>106.66</b>
Mangoola	Approved	26/04/21	3.3	0.4	104.3	107.9
Tahmoor South	Approved	23/04/21	26.7	1.2	65.8	93.8
<b>Dendrobium</b>	<b>Refused</b>	<b>5/02/21</b>	<b>17 - 22</b>	<b>1.7</b>	<b>237.0</b>	<b>255.9</b>
Maxwell Underground	Approved	22/12/20	9.9	1.1	326	337
Russell Vale	Approved	8/12/20	1.4	0.1	9.6	11.1
Narrabri Gas Project	Approved	30/09/20	15.5	18.0	94.3	127.8
Vickery Coal Project	Approved	12/08/20	3.1	0.8	366	369.9
Rix's Creek South Mine	Approved	12/10/19	0.8	0.2	71.5	72.5
<b>Bylong</b>	<b>Refused</b>	<b>18/09/19</b>	<b>2.1</b>	<b>1.3</b>	<b>197.4</b>	<b>200.8</b>
United Wambo	Approved	29/08/19	5.8	0.8	259.3	265.9
<b>Total GHG emissions assessed by NSW IPC / NSW DPIE</b>			<b>85.5 - 90.8</b>	<b>27.13</b>	<b>1836.10</b>	<b>1949.29</b>
<b>TOTAL GHG EMISSIONS APPROVED BY NSW IPC</b>			<b>66.50</b>	<b>22.61</b>	<b>1296.77</b>	<b>1385.94</b>

**12. Adding 5.71 Mt of new and additional Scope 1 GHGs (mostly fugitive methane) is not consistent with NSW Government policy that seeks to *reduce* fugitive methane emissions from coal mining.**

The NSW Government's 2020 Strategic Statement On Coal Exploration And Mining In NSW states that the NSW Government will work to "*reduce the greenhouse gas emissions directly associated with coal mining in NSW (fugitive emissions)*". A May 2021 NSW Treasury paper makes the common sense finding that to meet NSW's Net Zero commitment, meaningful action on GHG emissions from coal mining is required:

*"Combined, GHG emissions from coal mining, electricity generation, and private motor vehicles constitute more than half of all New South Wales GHG emissions, meaning transition in these three sectors will constitute a key component of this commitment."*<sup>12</sup>

The IEA - in their recently released [Net Zero by 2050](#) report - are calling for the "elimination of all technically avoidable methane emissions by 2030". The IEA models a 75% fall in methane emissions from fossil fuels between 2020 and 2030 as result of "a concerted global effort to deploy all available reduction measures and technologies".

Adding 5.71 Mt of new and additional Scope 1 emissions (mostly fugitive methane), with no credible plan to mitigate any of it, cannot be and is not consistent with this policy direction.

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<sup>12</sup> The sensitivity of the NSW economic and fiscal outlook to global coal demand and the broader energy transition for the 2021 NSW Intergenerational Report, NSW Treasury, May 2021, [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](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)

## Appendix 1: Summary of emissions for MOD 8

Table 21 Summary of estimated GHG emissions

Mining year	ROM coal (Mt)	Emissions (Mt CO <sub>2</sub> -e)		
		Scope 1	Scope 2	Scope 3
2022	8.60	0.74	0.07	20.28
2023	8.90	0.81	0.06	21.42
2024	8.00	0.80	0.06	19.35
2025	8.00	0.80	0.06	19.15
2026	8.60	0.82	0.06	20.59
2027	9.00	0.83	0.06	22.07
2028	9.10	0.79	0.06	21.81
2029	8.60	0.80	0.06	21.16
2030	8.60	0.80	0.06	20.26
2031	8.60	0.81	0.06	20.96
2032	8.60	0.76	0.06	20.61
2033	8.54	0.76	0.06	20.21
2034	8.60	0.77	0.06	20.17
2035	8.60	0.75	0.06	20.37
2036	8.60	0.74	0.06	20.57
2037	5.83	0.48	0.04	14.29
2038	4.30	0.38	0.04	11.61
2039	4.00	0.36	0.04	9.76
2040	-	0.09	-	0.00
2041	-	0.09	-	0.00
2042	-	0.09	-	0.00
Average (2022-2042)	7.95	0.63	0.06	16.41
Total (2022-2042)	143.06	13.27	1.05	344.68