



# Expert Report to the NSW IPC on the Greenhouse Gas and Climate Implications of the Glencore Glendell Continued Operations Coal Project (SSD 9349 and SSD 5850 Mod 4)

## Response to Additional Material

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## 1 Preliminaries

1) This expert additional report (hereafter, this Additional Report) is a response to new information received by the Independent Planning Commission (hereafter, IPC) Panel for the Glendell Continued Operations Coal Project (hereafter, the Project) from the Department of Planning and Environment (DPE) and the applicant, Glencore Coal Pty Limited (hereafter, Glencore). The IPC indicated on 13 April 2022 that it had reopened public submissions on this new material until 5pm AEST Friday 22 April 2022.<sup>1</sup>

2) The new material<sup>2</sup> open for comment comprises:

Applicant's response (Part 1) to questions taken on notice, plus two (2) attachments (dated 23 March 2022):

a) 220323 IN Applicant Response Attachment 1 (hereafter, **Applicant Response Attachment 1**)

b) 220323 IN Applicant Response Attachment 2 (hereafter, **Applicant Response Attachment 2**)

c) 220323 IN Applicant Response to IPC Point 7 MineCraft Report Redacted

Applicant's response (Part 2) to questions taken on notice (dated 23 March 2022):

d) 220323 IN Applicant Response to IPC Questions on Notice Part 2 Redacted (hereafter, **Applicant Response to IPC Questions**)

Transcript from the Heritage NSW meeting (28 March 2022):

e) 220328\_Heritage NSW transcript

DPE Response to questions on notice (30 March 2022):

f) 220330INDPE Responses to IPC Questions on Notice Redacted (hereafter, **Departmental Response to IPC Questions**).

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<sup>1</sup> <https://www.ipcn.nsw.gov.au/projects/2022/02/glendell-continued-operations-project-ssd-9349>

<sup>2</sup> <https://www.ipcn.nsw.gov.au/projects/2022/02/glendell-continued-operations-project-ssd-9349>

(See Correspondence tab)

- 3) This Additional Report follows on my report dated 28 March 2022 (hereafter, my March 2022 Report) which was tendered in response to a brief provided to me by Environmental Defenders Office (hereafter, EDO) on 2 March 2022 on behalf of its clients Mr Scott Franks and Mr Robert Lester in relation to the proposed Project.
- 4) I have reviewed Division 2 of Part 31 of the *Uniform Civil Procedure Rules 2005 (UCPR)*, and the Expert Witness Code of Conduct contained in Schedule 7 of the UCPR, both of which govern the use of expert evidence in NSW Courts, and I agree to be bound by them in this Additional Report. Specifically, I understand and agree to comply with the expectation that *“An expert witness is not an advocate for a party and has a paramount duty, overriding any duty to the party to the proceedings or other person retaining the expert witness, to assist the court impartially on matters relevant to the area of expertise of the witness.”*
- 5) External sources used in this Additional Report are referenced. Unless otherwise indicated, modelling work presented in these external sources is taken at face value, as verifying the results is beyond the scope of this Additional Report. Where relevant, underlying assumptions are noted.
- 6) As this Additional Report is brief, it has no Executive Summary. In what follows, the text in **bold** provides an even briefer overview.

## 2 Applicant Response to IPC Questions

### 2.1 *Safeguard Mechanism, Coal Quality and Measure of Environmental Impact*

- 7) On pages 22 and 23 of the Applicant Response to IPC Questions, the applicant notes that the calculated emissions baseline under the 'Safeguard Mechanism' is based on a forecast of production, and that in this case, there is no baseline applied to the Glendell mine, but rather to the entire Mt Owen Glendell Complex. After 30 June 2023, the current 'transitional' baseline will change to a Production Adjusted Baseline which will rise and fall in line with run of mine (ROM) coal production. If the baseline is exceeded in any given year, the facility is required to relinquish Australian Carbon Credit Units.
- 8) **The current 'Safeguard Mechanism' as it applies to the Project would not reduce, or even curtail, GHG emissions from Glendell** since:
- a) The baseline only applies to the Mt Owen Glendell Complex, and the applicant has stated that the Project is designed to keep coal production constant in the Complex by increasing production at Glendell whilst other mines, including Liddell Coal Operations and the Ravensworth East and Glendell Mines, decline in production.<sup>3</sup>
  - b) The Production Adjusted Baseline to come into effect in 2023 does not limit emissions, but rather rises and falls with production.
  - c) Even if the baseline were to be exceeded, no mechanism is in place to reduce future emissions.
- 9) Consequently, the Australian Safeguard Mechanism does not act to reduce emissions. Climate economists have indicated that the baselines are far too high to achieve that aim, and that exemptions are often given, resulting in emissions *above* the baselines.<sup>4,5</sup>

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<sup>3</sup> Glencore (2019) Glendell Continued Operations Project Environmental Impact Statement. Main Text. Accessed at: <https://www.planningportal.nsw.gov.au/major-projects/projects/glendell-continued-operations-project-2>

<sup>4</sup> <https://www.theguardian.com/environment/2020/feb/08/big-polluters-again-allowed-to-lift-emissions-without-penalty>

<sup>5</sup> <https://theconversation.com/morrison-government-dangles-new-carrots-for-industry-but-fails-to-fix-bigger-climate-policy-problem-138940>

- 10) In response to the IPC question: “Do you get greater energy per tonne of CO<sub>2</sub> emitted by burning high quality coal?”, a response is given on page 29 of the Applicant Response to IPC Questions that “Overall, around 15% less CO<sub>2</sub> would be generated by switching from burning sub-bituminous coal in a Sub-critical Boiler Plant Station to burning bituminous Glendell/Mt Owen coal in an Ultra-Supercritical Boiler or IGCC Power Plant.” **Unless the applicant is restricting the sale of its coal to customers who will use Ultra-Supercritical Boiler or IGCC Power Plants, this applicant statement is irrelevant. The relevant response to IPC’s question is the approximately 7% reduction in CO<sub>2</sub> per unit of electricity generated** mentioned on page 28 of Applicant Response to IPC Questions.
- 11) **In terms of the total effect on NSW environment, the relevant measure is not the CO<sub>2</sub> emissions per unit of electricity, but the total emissions expected to result from approval of the Project, namely the sum of its Scope 1, 2 and 3 emissions of 227.3 Mt CO<sub>2</sub>-e.<sup>6</sup>**
- 12) In order to provide a sense of scale, **these Project emissions, and their effect on the NSW environment are 35 times larger than the Project’s Scope 1 emissions alone, and nearly double current NSW annual Scope 1 emissions from all activities in the state.**

### 3 Glencore’s Production Cap

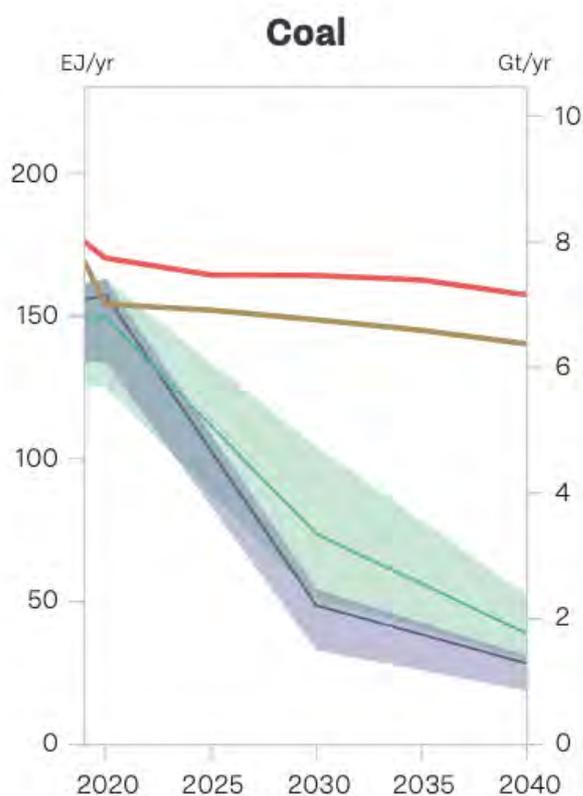
- 13) Applicant Response Attachment 1, an NSW Department of Planning, Industry and Environment (the Department) document dated October 2020, is a review of the Project. At section 5.5 of that document, the Department states [**emphasis mine**]: “In February 2019, **Glencore** publically (sic) **advised the financial markets they would broadly cap their total production at then current levels (approximately 145Mtpa)**. The split between thermal and metallurgical coal was not differentiated. **It is not clear if this cap will have any impact upon the proposed Glendell Project** (refer [www.glencore/media/news](http://www.glencore/media/news)).”
- 14) In Table A2.1 of Applicant Response Attachment 2, **Glencore appears to refute this statement**, saying “. . . the Project fits within Glencore’s committed production cap.”

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<sup>6</sup> I note that the Departmental Response to IPC Questions now agrees with my March 2022 Report on this number.

15) **However**, by pointing out that the proposed Project fits within Glencore’s committed production cap, **the applicant is reaffirming that the current cap will *not* have an impact on the Project, that is, the Project will proceed unaffected, as it already ‘fits’ within the stated cap.**

16) It is important to point out that **Glencore’s Production Cap is a business-as-usual statement**, namely that Glencore intends to maintain coal production at about 145 Mtpa for the foreseeable future. This is **completely inconsistent to holding global warming to 2°C, let alone well-below 2°C as science and the Paris Agreement support**. This is made clear in Figure 1 below, which shows that holding warming to 2°C or below requires an immediate, substantial, rapid and sustained *decline* in coal production. **Simply put, constant coal production leads to rising temperatures that are increasingly dangerous with a moderately high risk of being catastrophic.**<sup>7</sup>



*Fig.1: Global emissions trajectories for coal based on current production and projections (red) and as implied by climate pledges (gold). Also shown is a range of trajectories consistent with holding global warming to 2.0°C with a 66% chance (light green), and with holding global warming to 1.5°C with a 50% chance (lavender).*

*Figure taken from: SEI, IISD, ODI, E3G, and UNEP (2021) The Production Gap Report: 2021 Report. Governments’ planned fossil fuel production remains dangerously out of sync with Paris Agreement limits.*

<sup>7</sup> See Section 6 of my March 2022 Report.

## 4 Risky and Inappropriate Assumptions in EY Economic Analysis

### A long-term future for coal?

- 17) The Economic Impact Assessments prepared by EY on behalf of **Glencore** and attached as appendices to Applicant Response Attachment 2 **assume a long-term market for coal and that** from 2025 and onward (for the life of the Project to 2044), **coal prices** and exchange rates **remain at “published long- term rates”** (or 15% lower in their sensitivity analysis), **extrapolating these to derive a putative economic benefit to NSW deriving from the Project. Such extrapolations ignore the global call to end reliance on coal**, not just from **scientists or the United Nations**, but from organisations like the **International Energy Agency**,<sup>8</sup> which has advocated no new coal developments or extensions in its net-zero roadmap for the global energy sector.
- 18) **In my view, a long-term market for coal is a dangerous assumption upon which to base any decision, let alone one with such deleterious effects on the environment of NSW. To do so would be ‘betting on’ and facilitating a world consistent with 3 – 4°C of warming by 2100, or more, with temperatures rising even more thereafter**, as Glencore itself indirectly concedes by noting that the A2 SRES scenario is the IPCC scenario most consistent with the Project.<sup>9</sup>

### Yet very small cost to NSW in climate impacts?

- 19) Section 3.2.3 of the Applicant Response Attachment 2 states *“The cost benefit analysis of the PMP and Options 6 and 7 includes a consideration of costs of all environmental impacts with the exception of the intangible impacts to Aboriginal cultural heritage and the heritage associated with the Ravensworth Homestead.”* I must repeat that **it is simply not credible that all environmental costs, including those from climate change resulting from the greenhouse gas emissions of the Project have been given appropriate consideration.**

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<sup>8</sup> IEA (2021) Net Zero by 2050: A Roadmap for the Global Energy Sector, accessed at: <https://www.iea.org/reports/net-zero-by-2050>

<sup>9</sup> See Section 8.3 of my March 2022 Report.

20) The EY Assessment lists a cost to NSW due to greenhouse gas emissions from the Project as only \$0.07 million in NPV terms. **Both the independent CIE economic analysis and my own (under)estimate of climate costs based on the scientific literature yield costs to NSW that are 900 to 4000 times larger than EY's estimate.<sup>10</sup> With respect to reasonable estimates of the true climate costs to NSW deriving from Project emissions, Glencore's submissions are untenable.**

Respectfully submitted on 22 April 2022,



Professor Penny D Sackett

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<sup>10</sup> See Section 9.2 of my March 2022 Report.