LOCK THE GATE **ALLIANCE**

AUSTRALIANS WORKING TOGETHER TO PROTECT OUR LAND, WATER, AND FUTURE

Reply to: Nic Clyde
Lock the Gate Alliance
[redacted]

24 January 2022

Professor Mary O'Kane
Chair
NSW Independent Planning Commission
[redacted]

CC: Samantha McLean
Executive Director
Office of the Independent Planning Commission NSW
[redacted]

Dear Professor O'Kane,

Re request that the NSW IPC urgently commission an independent economic review of the Narrabri Underground Mine Stage 3 Extension Project, paying particular attention to the carbon costs of the projected 34.12 Mt CO2-e Scope 1 and 2 GHGEs

We write to urgently request that you require all Scope 1 and Scope 2 emissions for the Narrabri Underground Mine Stage 3 Extension Project to be appropriately costed in an independent economic analysis. These GHGEs would be emitted in NSW, and are therefore wholly attributable to NSW and the Project. We understand that NSW DPIE's and the NSW IPC's policy position is that 100% of these costs must be attributed to the Project.

An independent analysis of the net benefits versus net costs of the Project should ensure:

1. that 100% of the most up to date Scope 1 and 2 GHGE estimates are costed;
2. that emissions calculations for methane are updated to reflect the IPCC's 5th Assessment Report GWP of 28; and
3. that post mining Scope 1 and 2 emissions are included in the costings.

Taking this course of action will ensure that your consideration of this project is consistent with the information provided for Glendell Continued Operations and Mount Pleasant Optimisation coal project assessments, and with the IPC's previous approach in determining the Mangoola Continued Operations Project and Maxwell Underground.

In its AR, the Department concedes that the cost benefit analysis is deficient and that attribution of 100% of Scope 1 and 2 carbon costs to the Project would *"significantly reduce net benefits"*. It is not clear why the Department failed then to seek further information from the proponent to assess actual projected reductions against projected benefits before referring the project to the IPC for determination.

The Department has failed to provide guidance to the Commission as to the actual carbon cost of 34.19 Mt CO2-e of Scope 1 and 2 emissions to the NSW economy and the cost-benefit analysis of this project. Without a concrete figure (or range of figures), the Commission has no way of testing the veracity of the following claim from the DPIE in their AR:

> *424. While full accounting of Scope 1 and Scope 2 GHG emission costs to NSW and Australia would significantly decrease the Project's estimated net benefits, a significant net economic benefit would still accrue to the NSW Government, primarily from coal royalty payments. A significant benefit would also arise for the NSW community from the NSW share of Commonwealth income taxes. Shareholders of Whitehaven and other entities which are resident in NSW would also share in the profits made by undertaking the Project, by way of dividends.*

The EIS's Economic Assessment claims the Project would result in a total net benefit to the NSW economy of **$599 million** in net present value (NPV) terms, however this claim is flawed for the reasons set out below. Our calculations suggest that even using carbon price assumptions generous to the proponent, the cost of Scope 1 and 2 carbon emissions would be ~$750M at a minimum. Using the high price forecast (outlined below), the cost of Scope 1 and 2 carbon emissions could be in the order of ~$1.3B. The total projected net benefit of $599 million **+** $259 million in royalties **= $858M**. If carbon costs are roughly in the order of somewhere between ~$750M and ~ $1.3B, then it is likely to very likely that both the total net benefit calculated for the project of $599M and the primary benefit that the Department claims would still accrue - ie $259 million in royalties - would be overwhelmed by Scope 1 and 2 carbon costs, resulting in a net loss.[1]

We note that NSW DPIE engaged an independent expert (The Centre for International Economics) to undertake a review of the Economic Assessment for the Glendell Continued Operations Project. The CIE's Review was completed on 30 November 2021. The review included an assessment of the full cost of Scope 1 and 2 GHG emissions and found that the *"largest economic cost of the Project is associated with greenhouse gas emissions"*. We also note the Commission's position in the Mangoola Continued Operations determination SoR *"that all Scope 1 and Scope 2 emissions should be fully costed."* Further, we note 24 December 2021 correspondence between DPIE and MACH Energy Australia Pty Ltd stating that anything other than a full costing of Scope 1 and 2 GHG emissions is not supported by NSW DPIE and *"is inconsistent with the Department's Guidelines for the economic assessment of mining and coal seam gas proposals 2015, Technical Note 9"* (see Background below).

Please do not hesitate to contact me if you require any further clarification of this request.

Kind regards,

Nic Clyde
NSW Coordinator
Lock the Gate Alliance

[1] N.B. we have only used 2022 carbon values, which would significantly underestimate the full cost, as these calculations do not account for the projected increases in carbon prices.

BACKGROUND

Scale of GHG emissions: the Project's economic assessment considered only a fraction of 26.7Mt, whereas 100% of the estimated 34.12 Mt CO2-e must be assessed

- NCOPL's consultants (Jacobs) project total Scope 1 and 2 emissions attributable to the Project to be **34.12 Mt CO2-e** (operational and post-mining).

- The Narrabri Underground Mine Stage 3 Extension Project's Economic Assessment attributed only 0.0031% of the cost of 26.7Mt Scope 1 and 2 GHGs to the Project.

- NSW DPIE's and the NSW IPC's position is that 100% of these costs must be attributed to the Project.

- Scope 1 emissions alone are estimated at 32.8 Mt CO2-e (31.19 Mt operational emissions and 1.6 Mt post mining). Lock the Gate's view is that 32.8 Mt CO2-e of Scope 1 emissions is an underestimate as it does not account for an increase in the methane GWP from 25 to 28.

- Scope 2 emissions for this Project are estimated to be 2.931 Mt CO2-e.

DPIE's and the IPC's position is that 100% of these costs must be attributed

Table 3-6. Project emissions valuation ($2020) reveals that the Economic Assessment considered only 26.7 Mt CO2-e of Scope 1 and 2 emissions as a starting point. Even then, 99.69% of these emissions were set aside as not relevant to NCOPL's assessment as 99.69% of world gross domestic product (GDP) occurs outside of NSW. This approach is not supported by NSW DPIE, which *"considers it is inconsistent with the Department's Guidelines for the economic assessment of mining and coal seam gas proposals 2015, Technical Note 9"* (24 December 2021 DPIE letter re Mount Pleasant Optimisation). We note also that the IPC has supported NSW DPIE's position on this. For example, in relation to the April 2021 decision on Mangoola Coal Continued Operations Project, the IPC Determination (p.43) stated:

> *The Commission notes that the EIA multiplies the cost of climate impacts by the ratio of NSW population to global population. The Commission does not accept the methodology for calculating GHG impacts and costs referenced above. The Commission noted that this approach, in particular for addressing the costs of Scope 1 and 2 emissions, is not consistent with international rules, as these emissions are entirely accounted for where they are generated and emitted (i.e. in NSW) and by the emitting entity.* ***The Commission*** *has therefore disregarded the EIA's estimate of the indirect cost of fugitive emissions and* ***is of the view that all Scope 1 and Scope 2 emissions should be fully costed*** *in the economic analysis because they are emitted in NSW, and therefore attributable to NSW and the Project.*[2]

[2] NSW IPC, Statement of Reasons, 26 April 2021, Mangoola Coal Continued Operations project, https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2020/12/mangoola-coal-continued-operations-project-ssd-8642/determination/210426-mangoola-coal-continued-operations-project-ssd-8642--statement-of-reasons.pdf

Summary of Scope 1 emissions

Table 3 of the Amendment Report (May 2021) estimates that total Scope 1 emissions (Jacob's revised gas modelling) with flaring of pre-drainage gas would be 31.189 Mt CO2-e between 2022 and 2044.[3]

Table 2 of correspondence from Whitehaven Coal to NSW DPIE (December 2021) provides a summary of estimated greenhouse gas emissions post mine decommissioning, which total 1.607 Mt CO2-e between 2045 and 2064.

31.189 Mt of operational GHGEs + 1.607 Mt of GHGEs post mining = **32.796 Mt CO2-e.**

Estimate of full cost of Scope 1 emissions attributable to the Project

The EA Technical Notes recommend that total estimated (Scope 1 and 2) GHG emissions should be valued at 'central', 'high' and 'low' carbon prices. We do not have the resources to fully cost all Scope 1 emissions using the same methodology as Analyt Econ, however we have generated some indicative numbers based on the 2022 'central', 'high' and 'low' carbon prices provided in the EIS's Economic Assessment. It should be noted that we have only used the 2022 values, which would significantly underestimate the full cost, as these calculations do not account for the projected increases in carbon prices.

- The central forecast relies on the prices of EUA futures, as published by EEX (2020), which increase from AU$ 34.78 per tonne of CO2-e (t CO2-e) in December 2022 to AU$39.55 t CO2-e in December 2029.
- The high price forecast relies on carbon prices derived from the Australian Treasury Clean Energy Future Policy Scenario, in accordance with the NSW Government's 'Greenhouse Gas Emissions Valuation Workbook' (Department of Planning & Environment 2018). These prices are assumed to increase from $37.0 t CO2-e in 2022 to A$124.84 t CO2-e in 2044.
- The low price forecast relies on carbon prices derived from the US EPA Social Cost of Carbon (Department of Planning and Environment 2018). These prices are assumed to increase from $20.97 t CO2-e in 2022 to $38.16 t CO2-e in 2044.

With the above caveat in mind, we indicatively value the cost of **32.796 Mt CO2-e of** Scope 1 emissions for this Project as follows:

- Central forecast (AU$ 34.78 per tonne of CO2-e): **$1.14 billion**
- High price forecast ($37.0 t CO2-e): **$1.21 billion**
- Low price forecast ($20.97 t CO2-e): **$688 million**

Summary of Scope 2 emissions

In correspondence to DPIE dated 17 December 2021, Whitehaven Coal stated that "NCOPL has commenced receiving carbon neutral energy for all its electricity supply". It should be noted that no verification of this arrangement is on the public record nor does the letter specify how long this arrangement would persist. Whitehaven are vague about the duration of carbon neutral electricity supply, saying only that *"[f]or the period where this arrangement*

[3] Jacobs, APPENDIX C, AMENDED GREENHOUSE GAS CALCULATIONS, 31 May 2021, pg 4, https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-10269%2120210531T065545.008%20GMT

is in place, all Scope 2 emissions would be offset by these projects, which are certified by Climate Active."

In the absence of proof that all Scope 2 emissions will be avoided or offset out to 2050, the proponent should be required to fully cost Scope 2 emissions as per the EA Technical Note requirements. We note that Table 2 of correspondence from Whitehaven Coal to NSW DPIE (December 2021) projects Scope 2 emissions out to 2050.

Table 3 of the Amendment Report (May 2021) estimates that total Scope 2 emissions from the operational phase of the mine (Jacob's revised gas modelling) with flaring of pre-drainage gas would be 2.787 Mt CO2-e.

Table 2 of correspondence from Whitehaven Coal to NSW DPIE (December 2021) provides a summary of estimated Scope 2 greenhouse gas emissions post mine decommissioning, which total 0.144 Mt CO2-e between 2045 and 2050.

2.787 Mt of operational Scope 2 GHGEs + 0.144 Mt of Scope 2 GHGEs post mining = **2.931 Mt CO2-e.**

Estimate of full cost of Scope 2 emissions attributable to the Project

Using the same methodology described above to cost Scope 1 emissions, we indicatively value the cost of **2.931 Mt CO2-e of** Scope 2 emissions for this Project as follows:

- Central forecast (AU$ 34.78 per tonne of CO2-e): **$102M**
- High price forecast ($37.0 t CO2-e): **$108M**
- Low price forecast ($20.97 t CO2-e): **$61.5M**

The Project is likely uneconomic when DPIE's consultant's - the Centre for International Economics - low carbon price forecast is applied. Application of the central and high price forecasts cast further doubt on economic viability

The EIS's Economic Assessment claims the Project would result in a total net benefit to the NSW economy of **$599 million** in net present value (NPV) terms, however this claim is flawed for the reasons set out above. Our calculations suggest that even using carbon price assumptions generous to the proponent, the cost of Scope 1 and 2 carbon emissions exceed the net benefits of this project by ~$150M. The central carbon price scenario suggests carbon costs would be more than double expected net benefits.

- Lock the Gate's indicative estimates of the total cost of Scope 1 GHG emissions suggests they should be valued at a minimum of **$688M to $1.2B** using 'central', 'high' and 'low' carbon prices as required by EA Technical Notes.

- Lock the Gate's indicative estimates of the total cost of Scope 2 GHG emissions suggests they should be valued at a minimum of **$61.5M to $102M** using 'central', 'high' and 'low' carbon prices as required by EA Technical Notes.