

Submission by Emeritus Professor Jetse Kalma for the enquiry into the Glendell Continued Operations Project (29 January 2020)

I write to lodge my objection to the proposed Glendell Continued Operations Project which proposes to extract an additional 135 Mt of ROM coal and more than double the extraction at the Glendell pit from 4.5 Mt /yr to 10 Mt/yr.

As a climatologist for more than 30 years in CSIRO and as Professor of Environmental Engineering at the University of Newcastle until 2005, I have had a ongoing interest in anthropogenic changes in climate and the impact of climate change on water resources and agriculture.

My main objection to the Proposal is based on the the argument that Australia would be responsible for the potential impact on global climate of an estimated 230 Mt of greenhouse gases which will be emitted over the life of the Project as Scope 3 emissions in a number of Asian countries. Climate change has become a global emergency and Australia should not open any new coal mines, allow existing thermal coal mines to wind down and work towards a transition away from coal mining and coal fired power stations towards the use of renewable energy resources. In addition I make a number of climate change comments in the Main Text and Appendices 28 and 29

Global implications

1. Australia has subscribed to the objectives of the **Paris agreement** which are based on the need to keep global warming below 2 °C and preferably below 1.5 °C. This has very implications for **global emissions** and Glencore should play its part in reducing those emissions.
2. The avoidance of “double counting” of coal exports (i.e. the Scope 3 emissions) should not be used as an excuse for avoiding the moral and ethical responsibilities of adding substantially to **global emissions**. Opposition to coal exports of this magnitude does not imply support for double counting.
3. The Consent Authority does need to consider the detrimental role of **Scope 3 emissions**. It can not claim that such Scope 3 emissions are simply the Scope 1 emissions of other parties. Climate change does **not** stop at our borders. It has serious implications for Australia’s water resources, agriculture and food security and Australia needs to contribute towards minimising those impacts. It is in our interest.
4. Australia is among the world’s largest fossil fuel exporters. These exported fossil fuels are responsible for an estimated 3.6% of the global emissions total. If we add these emissions – for which we are **morally** responsible and from which we benefit financially – to our domestic pollutant load, this places Australia among the planet’s worst emitters. There is an urgent need to tackle Australia’s parallel carbon economy - our growing exported contribution to global warming.
5. Australia does have international responsibilities and the Consent Authority should consider the impact of Scope 3 emissions on global climate. Australia is a party to the **1992 United Nations Framework Convention on Climate Change** (UNFCCC). In its Preamble, UNFCCC recognizes the responsibilities of individual States to “ensure activities within their jurisdiction or control do not

cause damage to the environment of other States or areas beyond the limits of national jurisdiction”.

6. The UNFCCC Preamble also recognizes “the need for developed countries to take immediate action in a flexible manner on the basis of clear priorities, as a first step towards comprehensive response **strategies at the global, national and, where agreed, regional levels** that take into account all greenhouse gases, with due consideration of their relative contributions to the enhancement of the greenhouse effect”
7. Article 2 of the UNFCCC convention outlines the goal and prime responsibility of states for “stabilization of greenhouse gas concentrations in the atmosphere at a level that would **prevent dangerous anthropogenic interference** with the climate system”. This means preventing dangerous human-driven climate change, which the Paris Agreement further defines as holding global warming to far below 2°C, and as close as possible to 1.5°C. Fostering an accelerating global dependence on fossil fuels will see these temperature limits breached.
8. Article 3(1) (Principles) of the UNFCCC says states “should protect the climate system for the benefit of present and future generations of humankind, **on the basis of equity** and in accordance with their common but differentiated responsibilities and respective capabilities”.
9. Finally, and most importantly, Article 3(3) also calls on states to “take precautionary measures to **anticipate, prevent and minimise** the causes of climate change and mitigate its adverse effects.

National implications

10. Contrary to Glencore’s claim, the Project will materially increase **the national effort** required to reach Australia’s 2030 Greenhouse Gas mitigation target and any target beyond 2030. The Proponent should not hide behind the absence of a clear policy framework and any prescriptive emission reduction criteria or the failings of Government. Australia is a major domestic producer of greenhouse gas emissions, making it about the world’s 14th biggest emitter. In recent years our domestic emissions have risen, largely thanks to fugitive emissions released by increasing volumes of coal and natural gas for export.
11. The Project will add to **national and global GHG budgets** and result in further climate change which will negatively impact on a number of the policy directions and goals of the **NSW Climate Change Policy Framework**. In particular, one can point to the policy directions of “reducing risk and damage to public and private assets arising from climate change”, “reducing climate change impact on health and well being” and “managing impacts on natural resources and communities”.

Specific comments on EIS

12. The Proponent claims that “the so-called carbon budget approach which is *sometimes* used by scientists” is not required in this case. Yet, it refers to the NARcliM modelling and claims that the project’s expected emissions fit in with the superseded A2 emission scenario (IPCC-SRES, 2010) which is based on a carbon-budget approach and which results in extreme warming of about 3.4 °C by 2100!

13. IPCC in its Fifth Assessment Report (2013) uses a range of Recommended Concentration Pathways (RCPs) which provide a much wider span of possibilities. For example, RCP 2.6 which represents radiative forcing of 2.6 W/m² by 2100 and a corresponding greenhouse gas concentrations in 2100 equivalent to 490 ppm CO₂-e would have been **a much more realistic, desirable and necessary target** to aim for in this EIS in line with the Paris Accord.
14. Note that RCP2.6 assumes 'aggressive' mitigation strategies that cause global greenhouse gas emissions to start decreasing after about a decade and to reach near zero levels around 60 years from now. This scenario is unlikely to exceed a 2°C increase in global mean temperature since pre-industrial times with at least a 66% chance. **Accepting RCP2.6 as a desirable pathway would clearly make this Proposal unacceptable.**

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