

From: [Rhys Thomas](#)
To: [Portfolio Committee 7](#)
Cc:
Subject: Protection of the Environment Operations Amendment (Clean Air) Bill 2021
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Attachments: [image001.png](#)
[FINAL_WSP_Report_with_Addendum.pdf](#)

Hello,

The AEC understands that the NSW Portfolio Committee is currently undertaking its hearings with respect to the *Protection of the Environment Operations Amendment (Clean Air) Bill 2021*. The AEC did not make a formal submission to this inquiry though has made various submissions to similar past inquiries, both in NSW and other jurisdictions.

To assist the Committee in preparing its final report, the AEC wishes to make the following observations:

- Last year, the AEC commissioned WSP to prepare a report on the *Considerations for Retrofitting Emissions Control Systems in Australian Coal Power Plants*. A copy of the report is attached to this email and can also be accessed via this link: <https://www.energycouncil.com.au/media/dtyjfcadh/addendum-and-report.pdf>.
- The report investigated the implications of overseas emissions control technologies being used in Australia for three air pollutants: particulate matter (PM₁₀ and PM_{2.5}), sulphur oxides (SO_x) and nitrogen oxides (NO_x). It found that:
 - Retrofits will likely result in increased auxiliary power consumption and this may increase overall emissions (including carbon) even if one particular emission type is reduced by the retrofit.
 - There would be additional adverse environmental impacts, including large water consumption (the technology used to reduce sulphur oxides needs up to an extra 878,000,000 litres of water per year to operate) and the creation of additional greenhouse waste streams (nitrogen oxide abatement technology can result in ammonia slip).
 - Costs are significant. While it varies based on the size and type of a unit, for a single 720 MW black coal unit, the costs could reach as high as \$432 million in capital expenditure and \$27 million in annual operating costs. The AEC notes that these costs would likely render some coal-fired power generators uneconomic and risk a disorderly transition that would jeopardise energy security in NSW.
 - The above costs do not consider whether coal-fired power plants have the physical space to implement the retrofits. WSP raised some concern about the physical viability to do so; this would dramatically increase costs further if stations were forced to re-engineer their designs to install retrofits.
 - For particulate matter, even if retrofits were installed, the environmental benefit is likely to be minimal because most plants already meet European Union standards.
- The claims made in some submissions to this inquiry should be treated with caution because they have been previously discredited. For example, there are two reports from Dr. Ben Ewald that contain concerning figures about child deaths or adverse health effects from emissions. Given the emotive nature of such claims, they should be subject to an independent peer-review, but there is no evidence this has occurred.
 - Due to this, the AEC commissioned a consultant called EnRisks to peer review Dr. Ewald's 2018 report (*The Health Burden of Fine Particle Pollution From Electricity*

Generation). This [peer review](#) found that the report did not use standard scientific practices (e.g. discussing uncertainties, considering other key health endpoints) and concluded that the approach adopted was ‘flawed and misleading, not based on good science and will have resulted in a significant overestimation’.

- Finally, the Committee should bear in mind that the electricity sector is already taking significant steps to reduce its emissions. The Federal Government [projects](#) that carbon emissions in New South Wales will reduce by over 50% by 2030 based on 2005 levels. This will inevitably lead to large reductions of non-carbon emissions too. Given that the NSW Air Quality Assessment [found](#) that levels of nitrogen dioxide and sulphur dioxide ‘easily met national standards’, the AEC does not consider this Bill to have merit.

Please feel free to contact me if you have any questions.

Regards,

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