

SLR Consulting
Waste and Resource Management Team

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Queensland End of Waste Framework Review

The Australian Energy Council ('AEC') welcomes the opportunity to make a submission to the Queensland Government's Department of Environment and Science *Queensland End of Waste Framework Review* ('Review').

The AEC is the peak industry body for electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. AEC members generate and sell energy to over 10 million homes and businesses and are major investors in renewable energy generation. The AEC supports reaching net-zero by 2050 as well as a 55 per cent emissions reduction target by 2035 and is committed to delivering the energy transition for the benefit of consumers.

The AEC supports the intent of this Review to ensure the End of Waste Framework enables the Queensland Government's transition to a circular economy. The AEC has participated in similar reviews in other jurisdictions and has regularly sought to promote better understanding among key stakeholders about the re-use opportunities for coal combustion products, namely fly ash, furnace bottom ash and/or cenospheres. This submission seeks to highlight some areas of the End of Waste Framework specific to the energy industry that may inadvertently limit opportunities to divert reusable waste from landfill.

Role of coal combustion products in the circular economy

The Queensland Government's *Waste Management and Resource Recovery Strategy* (the Strategy) lays out a vision for Queensland to transition to a zero-waste society. The Strategy notes the strategic intent to develop a circular economy for waste and identifies certain waste streams for priority action. While coal combustion products are not listed as a priority waste stream, millions of tonnes of CCPs are disposed of and stored in ash dams or dry storage areas annually. The targets contained in the *Queensland Government Resource Recovery Industries 10-year Roadmap and Action Plan* do include the diversion of 80 percent of commercial and industrial waste from landfill by 2030, and 95 percent by 2050, so making better use of CCPs as a resource is important.

According to the *Recycling and Waste in Queensland Report*, Queensland generated 5,227,000 tonnes of CCPs in 2021-2022. Of that, 1,204,000 tonnes were recovered while the remaining tonnes were disposed to landfill. These figures demonstrate the need for incentives to facilitate and promote the use of CCPs towards re-use and assist the Queensland Government in meeting its targets.

Recent AEC submissions to a Federal Government [Senate Inquiry](#) about waste management and a NSW [review](#) about remediation of coal ash outlined these opportunities. In short, ash produced from coal combustion can be beneficially re-used for a variety of construction activities, including brick making, lightweight aggregate, and concrete. Fly ash has been [identified](#) as a partial substitute for cement in the making of concrete, as it is more technically sound and a low carbon alternative (cement manufacturing is a major source of greenhouse gas emissions globally). Sydney has recently [tried](#) using concrete made from fly ash to repair a busy roadway.

Ensuring the End of Waste Framework is fit for purpose

The *Waste Reduction and Recycling Regulation 2011* currently exempts “fly ash” produced by a coal fired power station from the Waste Levy. The term “fly ash” does not encompass other CCPs, namely furnace bottom ash and cenospheres. As power stations do not separate ash based on ash types, the application of a Waste Levy to some ash types and not others would seem to create an impractical compliance requirement and does not support the object of the *Waste Reduction and Recycling Act 2011*. The AEC considers then this drafting was not intentional and that the exemption was intended to apply to “coal combustion products” to recognise the integrated nature of coal-fired generation and ash disposal activities in Queensland and to identify it as a resource rather than a waste.

Furthermore, the AEC notes that the *End of Waste Code for Coal Combustion Products (ENEW07359717)* includes fly ash, furnace bottom ash and cenospheres as a resource for a range of approved end use applications. It would seem then that there is no resource re-use reason or other waste reduction justification for distinguishing between fly ash, and furnace bottom ash and cenospheres, as exempt wastes under the Regulation.

The AEC also understands that Queensland’s *Waste Reduction and Recycling Act 2011* currently prohibits the removal of deposited ash (for which a levy is paid) for sale or commercial gain. This means that in situations where the deposition of ash is covered by the Waste Levy, a power station will be precluded from selling deposited coal combustion products to another party for an approved End of Waste use. Such a prohibition appears to be contrary to the general intent of the Act and the Queensland Government’s ambitions to transition to a zero-waste, circular economy.

The AEC considers these barriers to re-use can be resolved through amendments:

1. To the Regulation to expand the current exemption for “power station fly ash” to include either “coal combustion products and associated wastes” or “power station ash and associated wastes”.
2. To the definition of “waste facility” under the Act to exempt integrated electricity generation and waste disposal activity authorised under separate Environmental Authorities.

Working with other jurisdictions to achieve harmonisation

While it might be beyond the initial scope of this review, the AEC recommends the Queensland Government work with federal and state jurisdictions to achieve national coordination and regulatory harmony. This would facilitate a consistent, coordinated industry approach to meet the objectives of a circular economy, through:

- Promotion of waste avoidance and reduction, and resource recovery and efficiency actions.
- Reduction in the consumption of natural resources and minimisation of waste disposal.
- Minimise the overall impact of waste generation and disposal.
- Ensure a shared responsibility between government business and industry and the community in waste management and resource recovery.
- Support and implement a national framework for waste management and resource recovery.

This would encourage a more efficient circular economy to emerge and is consistent with recommendations made in previous [Senate reports](#) about how to improve waste management. For example, the 2018 Senate Standing Committees on Environment and Communications report on the waste and recycling industry in Australia recommended:

... that the Australian Government work with state and territory governments to ensure the implementation of harmonised, best-practice landfill standards.¹

The AEC looks forward to continuing working with the Queensland Government to ensure the End of Waste Framework is fit for purpose and supports a circular economy through the diversion of waste from landfill.

Any questions about this submission should be addressed to Rhys Thomas, by email Rhys.Thomas@energycouncil.com.au or mobile on 0450 150 794.

Yours sincerely,

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¹ Senate Environment and Communications Reference Committee 2018, “Never waste a crisis: the waste and recycling industry in Australia,” Commonwealth of Australia, p111, 142.
https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/WasteandRecycling/Report.