EFW NSW Inquiry- Supplementary Questions and Answers (WMRR)

Questions	Proposed Responses
WMRR gave evidence that landfill constraints are a key driver for EfW. Within the industry data relied upon by WMRR, what assumptions are made about the capacity of alternative measures - such as higher diversion, product stewardship or landfill upgrades - to materially relieve those constraints under current NSW policy settings?	WMRR's evidence recognises landfill constraints as both a capacity and climate risk issue. In forming its position, WMRR relied on published waste volume projections and demographic growth forecasts that reflect current NSW policy settings and known reform trajectories. These projections generally assume incremental improvements in recycling performance; however, they do not assume transformational shifts in product design, consumption patterns or rapid demand reduction beyond measures currently legislated or formally committed. WMRR also recognises a structural limitation within the Australian regulatory framework. Unlike the European Union, Australia does not yet have comprehensive generator obligations or product design requirements across most material streams. Outside of a limited number of regulated products, materials can continue to be placed on the market that are not designed for reuse, repair or safe recycling. As a result, a residual waste fraction is structurally embedded within the system. Further, all products ultimately reach end of life. Where materials cannot feasibly be recovered through higher-order pathways, the remaining alternatives are energy recovery or disposal. From a climate perspective, landfill presents a material risk. Landfill is a significant source of methane emissions, a greenhouse gas with a global warming potential approximately 28–34 times greater than carbon dioxide over a 100-year period. Even with modern gas capture systems, fugitive methane emissions cannot be fully eliminated. As residual waste volumes grow alongside population and consumption, landfill capacity constraints also represent an escalating emissions challenge under NSW and Commonwealth net-zero commitments. There is also the ongoing challenge of managing leachate. WMRR strongly supports higher diversion, expanded product stewardship, improved product design and reinvestment in recycling infrastructure. However, NSW's current recovery rate of approximately 64% demonstrates that substantial residual waste remains. Even under more ambitious reform scenarios, certain composite, contaminated or non-recyclable materials will continue to reach end of life. In this context, Energy from Waste can provide a lower-emissions alternative to landfill for genuinely residual waste by: • Avoiding long-term methane generation

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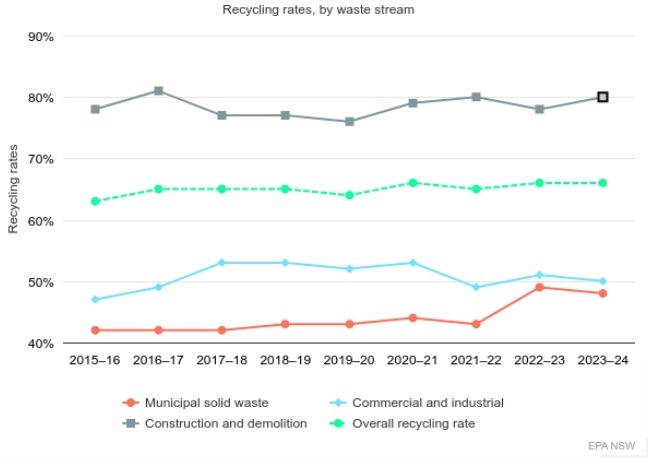
	• Recovering energy that can displace fossil fuel-based generation • Reducing the lifecycle greenhouse gas intensity of residual waste management However, WMRR emphasises that EfW forms part of an integrated material management system with a clear role in managing residual waste. It does not displace recycling or waste avoidance. EfW's role is therefore complementary and residual within a decarbonising waste and resource recovery system.
WMRR's evidence relied on waste volume projections. To what extent do those projections account for higher-than-expected recycling performance, material bans or demand reduction, and what limitations does WMRR acknowledge in using such projections to inform long term infrastructure planning?	WMRR's evidence relied on published waste volume projections and demographic growth forecasts based on current policy settings. These projections generally assume incremental improvements in recycling performance, noting that recovery in NSW has been stalled over the last decade at mid-60%, according to EPA NSW's own data.  WMRR acknowledges limitations exist in using long-term projections for infrastructure planning: • Recycling performance may exceed expectations due to policy reform or technological innovation. • Expanded stewardship schemes or material bans may reduce residual streams. • Economic cycles influence waste generation rates.

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	• Circular procurement and demand reduction policies may lower overall material intensity. However, NSW (and Australia) does in fact have a national target of 80% resource recovery by 2030 that means that there is significant need for investment in all waste and resource recovery (WARR) infrastructure types to meet these necessary targets, including EfW facilities.
WMRR characterised EfW as consistent with a circular economy. What specific material retention or resource-recovery outcomes does WMRR rely upon to support that characterisation, distinct from energy recovery from residual waste?	WMRR characterises EfW as consistent with a circular economy when applied to genuinely residual waste that cannot feasibly be avoided, reused, repaired or recycled. A circular economy delivers its strongest climate benefits through extending product life, preserving embodied carbon, and reducing virgin material extraction. EfW is lower on the waste management hierarchy and plays a role when applied to residual waste, given that along with capturing energy it can contribute to circular outcomes by: • Avoiding methane emissions from landfill • Recovering energy that displaces fossil fuel generation • Enabling recovery of metals and aggregate fractions from Incinerator Bottom Ash (IBA), reducing demand for virgin aggregates In best-practice facilities, up to approximately 90–96% of incoming material can be diverted from landfill when accounting for energy recovery and ash processing. As continually stated by WMRR, EfW sits below recycling in the waste management hierarchy and does not compete with material recovery. It is residual treatment solution within a broader circular framework focused on waste avoidance, design reform, stewardship expansion and high-quality recycling.
WMRR acknowledged community concern regarding EfW. What limits does WMRR recognise in the industry's evidence base when social acceptance or community opposition is significant, particularly in regional locations?	WMRR recognises social licence to operate is a critical factor in all infrastructure planning not just WARR facilities. International evidence demonstrates that best-practice EfW facilities operate safely in both regional and metropolitan communities, under appropriate environmental controls. These facilities must demonstrate that they meet all planning and environmental authority requirements prior to being approved. To support best practice across the sector, WMRR has developed a Social Licence to Operate (SLO) toolkit to guide engagement and trust-building for all WARR infrastructure. To assist with developing SLO facilities need to demonstrate being 'good neighbours' and we have included a number of proposals to assist with this including transparent emissions reporting.

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What limitations does WMRR acknowledge in the evidence it relied upon when supporting EfW as part of NSW's waste and resource recovery framework, particularly in relation to long-term system flexibility and regional impacts?	WMRR supports EfW as one (1) component of the waste management hierarchy which practically means that it operates with an integrated waste and resource recovery framework. There is significant international evidence that supports this role, particularly for residual material that has been poorly designed or reached end of life. EfW should reduce landfill methane and displace fossil fuel energy where appropriate — and must operate within a system actively transitioning towards lower material throughput, improved product design and a decarbonised circular economy. At this time there is a real risk that the Federal government will not Act to deliver this framework even with the 2024 publication of the Circular Economy Ministerial Advisory Group (CEMAG) calling for such legislation and the clean need for greater generator obligation legislation, to ensure improved product design.

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