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Productivity Commission
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Submission via online portal

11 April 2025

Dear Commissioner

Re: Feedback on the Productivity Commission's interim report: Australia's circular economy: Unlocking the opportunities

Thank you for the opportunity to review the Productivity Commission's interim report: *Australia's Circular Economy: Unlocking the opportunities* ("interim report") and provide feedback. WMRR made an initial submission to the Productivity Commission (PC) inquiry into opportunities in the circular economy ("the inquiry") in November 2024 and welcomes the opportunity to provide further comments on the proposed reform directions ahead of the report's finalisation.

The terms of reference for the PC inquiry broadly cover the potential scope to lift Australia's materials productivity and efficiency, create a circular economy and the best metrics to measure both this opportunity and the improvements made. These terms of reference clearly align with WMRR's advocacy for governments to recognise the crucial role that our industry plays in managing material, reducing carbon impacts, improving material productivity, enhancing market opportunities and driving local investment, whilst yielding environmentally positive circular outcomes (such as using less for longer). Being at the forefront of the ongoing evolution towards a circular economy, WMRR's advocates that all levels of government must apply a systems lens and consider WARR within the context of broader supply chains and materials flows. Our fierce advocation of the waste management hierarchy emphasises the necessity of regulated sustainable design, extended producer responsibility and the provision of clear regulatory, infrastructure and policy pathways for the use of secondary raw materials as 'standard practice', in order to keep valuable materials in circulation at their highest and best use for longer.

PC's interim report

The interim report identifies priority reform directions in six (6) sectors (the built environment, food and agriculture, textiles and clothing, mining, vehicles, electronics), as well as opportunities for reforms to 'system-wide arrangements'. There are numerous examples in the report from across all sectors showcasing the existing challenges to enhanced circularity and WMRR commends the PC for capturing and validating the feedback of such a broad group of stakeholders.

The interim report complements the recently released Circular Economy Framework (CEF), which similarly identifies industry, the built environment, agriculture and food, and resources as priority areas for action. The CEF proposes to double Australia's circularity rate by 2035, whilst shrinking our per capita material footprint by 10%, lifting our material productivity by 30% and safely recovering 80% of our resources. Disappointingly, the CEF in adopting these targets, denotes a delay of five (5) years from the coexisting 2030 targets captured by the

National Waste Policy Action Plan, those being to reduce waste per capita by 10%, 'significantly increase' the use of recycled content, and to achieve 80% resource recovery from all waste streams.

WMRR notes that despite the detail and case studies contained within the interim report, this consultation appears to contain very specific information requests from stakeholders, to possibly support the proposed reform directions contained within the report. This approach risks relying on the potential issues that may arise due to the nuances of specific supply chains, rather than looking at the bigger picture of Australia as one (1) market with the common goal - across all supply chains and industries - to design out waste to achieve improved circular economy outcomes. WMRR considers that it is important to take a systems lens to these challenges by looking higher up the value and supply chains to address the fundamental issue that undermines circularity in the first place – a lack of producer responsibility and an expectation that useful commodities can be 'recovered' from products that were never intended for more than single use.

WMRR is concerned that recommendations for specific sectors, or material streams as *the first* point of reform does not provide enough emphasis to the inherent nature of a successful circular economies taking a true systems approach – wherein materials that enter the supply chain are designed for safe and effective recirculation. This first principle is something that is overlooked by measuring existing recovery outcomes, as many products entering Australia's supply chains are intended for cheap mass production (often for global markets), single use and disposal. Rather, as we noted in our initial response to the PC inquiry, Australia requires an overarching certain systems approach, akin to the *EU Waste Directives Framework* that makes it clear the order of preference for managing waste and places obligations squarely on those that produce and place products on market, i.e. creating by default a real paradigm of extended producer responsibility (EPR).

WMRR agrees with the analysis in the interim report identifying that progress towards circular outcomes in Australia has been slow, and that there are real opportunities for reform to address the misalignment between jurisdictions, reducing regulatory barriers and facilitating circularity through leveraging sustainable procurement and product stewardship. It is noted that inconsistent regulations are regularly noted as a hurdle and undermine opportunities for circular projects to scale up and become economically viable in the Australian market. The interim report identifies several opportunities to update existing regulations and policies which could help even the playing field for specific recovered materials to be reinvested back into the economy. It is also pleasing to see reform directions for system wide arrangements including harmonising regulations, facilitation services, supporting place based initiatives and expanding the set of circular economy indicators.

WMRR strongly encourages the PC to again consider recommending that a Commonwealth waste directives framework is implemented to address these outcomes. WMRR also draws the PC's attention to Chapter Four (4) of *The Circular Advantage* Report released in December 2024 by the Circular Economy Ministerial Advisory Group, the Minister's expert reference group, that also called for meaningful national regulation.

The need to level the playing field

Under a waste directives framework, mandated sustainable product design regulations and EPR schemes, market development initiatives (such as government procurement of locally sourced recycled content) and the application of policy initiatives such as recovered material framework and regulatory support for applying the waste management hierarchy to preference resource recovery initiatives would be supported by the federal government. These elements work together to 'level out the playing field' between virgin and secondary raw materials by placing a positive obligation on those that make products, to take responsibility for their products and their impacts (environmentally or economically). Importantly all these aspects also fall within the *European Green Deal* which are aimed at transforming the EU into a modern, resource-efficient and competitive economy,

which must also be part of the PC's agenda. In the absence of such a clear framework, Australia will continually struggle to meet its circular, resource recovery and productivity objectives, given the commercial advantage that virgin materials will continue to have in the absence of systems change, albeit the incredibly deleterious impact virgin has on climate.

WMRR is particularly supportive of the EU Waste Directives Framework model as it enables a system-wide approach to give emphasis to generator responsibility to design out waste and foster circular outcomes – regardless of product or industry. Specific directives, such as the Packaging *Waste Directive 94/62/EC (PPWD)* and the *Waste Electrical and Electronic Equipment ("WEEE Directive") 2012/19/EU* provide rules for generators to prevent the creation of waste. This enables the WARR industry - as producers of secondary raw materials – to meaningfully participate within the global and domestic economies and supply chains without the burden of having to 'recover' materials from products that were intended for single use and disposal. Under such a model, there would be:

- a stronger focus on design, to eliminate the creation of hard-to recycle and/or single-use materials;
- a precautionary approach to harmful chemicals with an emphasis on designing them out as a matter of priority;
- support and investment in re-use systems including mandatory thresholds for incorporating secondary raw materials , and
- an engagement strategy delivered to empower community and business to avoid purchasing products that are not designed for circularity. This would be coupled with consumer regulations such as mandatory labelling schemes.

Circularity metrics would be enhanced through a Commonwealth waste directives framework, under which opportunities for accurate data capture will necessarily arise from:

- Mandatory EPR schemes and design standards. Registering for mandatory schemes would enable many of these baseline metrics to be captured.
- Government procurement policy settings that require minimum recycled content thresholds. These could also be tracked to show progress in relation to the displacement of using virgin materials.
- Supply chain transparency and traceability – via business as usual resource recovery reporting (i.e. waste throughputs via waste levy reporting), and more is possible via smart technologies to track movement of materials. This data can be used to determine the actual lifecycle of materials and products, and help identify opportunities to improve.

Importantly, these elements come back to the fundamental principle of producer or generator responsibility within the circular economy, and do not disadvantage those that manage materials end-of-pipe with additional regulatory or financial burdens.

WMRR trusts that these overall comments and observations will be duly considered. WMRR's responses to the information requests contained within the interim report at **Annexure A.** Please contact the undersigned if you wish to further discuss WMRR's submission.

Yours sincerely

Gayle Sloan
Chief Executive Officer
Waste Management and Resource Recovery Association of Australia

Annexure A

Submission:

Interim Report Reference	WMRR Feedback
The Built Environment	
Reform direction & information request 4.1 Enabling fit-for-purpose use of recycled materials in public projects	WMRR supports this reform direction, noting that increased use of recycled materials in public projects will provide high profile opportunities to demonstrate the capability for these materials, and propel overall behaviour change to 'normalise' the use of non- virgin materials. For project contractors, the additional costs associated with sourcing recovered materials, the perceived risks of their environmental performance, and the burden of additional reporting and monitoring requirements often associated with the recovery of 'waste' materials are key barriers to uptake. Establishing consistent recycled content specifications across all state infrastructure agencies would be optimal. This requires alignment between the states on tolerance levels of physical and chemical contaminants (rather than pertaining to product performance – as this would be the same specification for virgin materials). Creating this agreed specification would help address the barriers of cost and risk. Implementation should look to remove the red tape that discourages or disqualifies capable local firms from participating as head contractors, subcontractors, and suppliers. The most straightforward way to do this would be to implement policies that establish minimum recycled content thresholds and set requirements for optimising the use of resource recovered materials at the bid phase, coupled with government coordination body. As noted in the interim report, this model has proven successful in Victoria through the *Recycled First* policy and ecologiQ integrating recycled content across Victoria's transport infrastructure projects – 'making the use of greener materials business-as-usual'.
Reform direction & information request 4.2 Coordination mechanisms to enhance the benefits of sustainable procurement policies	WMRR supports this reform direction and is particularly encouraged by Victoria's ecologiQ. WMRR has been advocating that all states must adopt the ecologiQ program, including at the Commonwealth level, to drive demand for our valuable recovered resources and limit the use of virgin materials. As per the Victorian model, it would be more beneficial to circular outcomes if coordination bodies are not focused solely on reporting the use of recycled materials, and sustainable procurement policies are complimented by integrated policy setting thresholds and requirements for tenderers in government infrastructure projects to optimise recycled and reused content at the bid phase. WMRR believes that costs and risk already play a deterring role in the use of recycled material by contractors, government efforts need to go beyond simply monitoring and measure of the materials used already as business as usual. WMRR appreciates that some circular products have cost benefits already – for example, the use of fly ash or recycled aggregates in concrete mixes can reduce costs whilst also reducing GHG emissions -and are being used in the built environment regardless of circular economy and sustainable procurement policies.

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	Government coordination of reporting requirements for recycled content use alone will not assist in promoting the uptake of recycled materials, as many may feel it is simply imposing another regulatory burden on contractors to supply monitoring data which is not required when using virgin materials. To ensure an equal playing field amongst contractors and to promote innovation, tenderers for major projects incentives should be incentivised at the point in the supply chain to drive market demand for recycled and reused materials in construction. This is the point in the supply chain that can influence their purchasing decisions to preference recycled or reused material over virgin materials. Placing mandatory requirements on all tenders to meet minimum thresholds, or to optimise the use of recycled material and then report back on the achievement of these metrics if successful, would yield more positive and beneficial environmental outcomes than simply reporting on what is currently being done. This has been clearly demonstrated in Victoria Given the pace at which Australia is progressing towards 2030 and 2050 resource recovery and net zero targets, it is not clear why driving end market uptake of recovered resources is not considered more pressing and addressed at a national level. The targets recently set by *Australia's Circular Economy Framework – Doubling our circularity rate (2024)* expressly pursue the three (3) targets of reducing material footprint by 10%, lifting materials productivity by 30% and safely recovering 80% of our resources by 2035. The Australian government efforts have been focused on measuring 'circular economy outcomes' for existing residual waste streams from the WARR sector, without delivering support for market development or innovation. Much more focus needs to be directed to the start of our supply chains to influence decision makers to prefer recycled and recovered materials and change the status quo. This requires positive action to be taken by governments to 'level the playing field' between 'new' and ;'recovered/recycled / remanufactured / reprocessed' materials, and address the additional costs and risk barriers that currently exist. The most effective way governments can alleviate these cost and risk pressures is to put mandated thresholds and policies in place that require a preference for locally sourced recycled materials to be required at the bid phase in order that contractors must meet these requirements and price them into their tenders. In order to understand opportunities that exist in the markets, there must also be a level of reporting of virgin materials, as well as an understanding of how much exists withing certain distances to make procurement reasonable. For example, if it was known that there was only a certain volume of specific virgin materials available in coming years, this would assist in future planning and investment of both the construction industry and the WARR industry to utilize recycled material counterparts. This need to include data measuring and monitoring the use and demand of virgin materials is an important metric for determining opportunities to unlock the circular economy.

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Reform direction & information request 4.3 Reducing unnecessary regulatory barriers to prefabricated construction	WMRR supports this reform direction, noting that prefabricated constructions are generally considered to minimise waste generation and increase productivity compared to traditional on-site construction, as components are manufactured in a controlled environment and can be precisely cut and assembled, whilst affording the economies of scale to make their use cost-effective. This model also lends itself to principles of extended producer responsibility (EPR) wherein modular components can be designed for use and then disassembled and reused in other projects, or materials can be recycled at the end of their lifespan, promoting a circular economy model. WMRR would support government mechanisms to incentivise prefab construction, noting that there is limited government support and incentives compared to other countries. Given that traditional procurement processes in construction are highly prescriptive, it is not well suited for prefab methods, as such a shift in thinking and approach is required. This change is only achievable if the Australian regulatory environment evolves to promote productivity and procurement policies are redesigned to effectively prioritise more sustainable methods and materials over the status quo. WMRR reinforces its earlier comments around the need to mandated thresholds to encapsulated in government procurement policies. This will drive uptake and enable prefab construction to build proven capability – this in turn should facilitate the cultural shift within the industry that is needed, so that owners and developers demand more sustainable and efficient construction methods thereby increasing market demand.
Information request 4.4 Other circular economy opportunities in the built environment	Savings linked to reduced carbon emissions The built environment sector presents strong opportunities for increased circularity within Australia, and WMRR emphasises that when linked to decarbonisation, there are clear government cost savings to be had by increasing uptake of recovered resources. For example, the Centre of International Economics (CIE) estimates that NSW Government infrastructure projects under construction have upfront carbon emissions of over four (4) million tonnes in 2023-24, and a cost of carbon emissions of over $500 million. This is equivalent to more than three (3) per cent of total NSW GHG emissions. The total cost to NSW from landfilling building and construction materials, glass, and plastics in 2023-24 is $121 million. There is an opportunity for governments to calculate these carbon savings at the start of the supply chain - in the planning and tendering processes to drive market development, demonstrate product quality and performance, and influence purchasing and design decisions. Extending opportunities in the built environment to look beyond recycled construction materials The National Waste Database reports on disposal by material type demonstrate that building and demolition materials and metals already have a very high recycling rate, whilst plastics and textiles have some of the lowest recovery rates across all materials. It follows that the government should look to identify and promote opportunities to recover more of these valuable materials for reinvestment into infrastructure projects. Given the scope of end products that can be remanufactured from these streams that can be incorporated into infrastructure projects, it makes sense to include them. It would particularly make sense for recycled organics to be targeted for use. Major infrastructure projects inevitably

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	require landscaping supplies. A commitment to increased procurement of recycled organics by all levels of government - given the commitment to roll out FOGO collections nationally and the *National Waste Policy Action Plan* targets to halve the amount of organics to landfill by 2030 - this would be a complementary approach to existing policies and regulation by ensuring certainty of markets for the increased level of recovered FO and FOGO products.
Food and Agriculture	
Reform direction & information request 5.2 Recognising the benefits of biogas in carbon reporting	Biogas has the potential to become a valuable contributor to Australia's renewable circular future, however, the costs of methane recovery technologies cannot be understated. The biogas industry in Australia is still emerging and somewhat dominated by landfill gas capture – the ACCU method for which has proved highly successful in reducing emissions from the WARR sector. With the pathway to separated food and organics collections set for 2030, there will be an opportunity for Anaerobic Digestion (AD) technologies in Australia to significantly increase in both number and scale. As per previous commentary, WMRR stresses the need for Australia to adopt a 'systems approach' to decarbonise our supply chains and recover our resources (including energy). As noted in the Interim Report, measuring the carbon impacts of using biogas is currently very complex, as avoided emissions cannot be claimed where biogas is purchased from network that convey both gas and biogas. The costs for AD projects are expensive. Whilst source separated food and organics mandates provide some regulatory certainty around the potential security of incoming feedstock for new builds, these technologies will be competing in many cases with existing composting facilities. For all resource recovery operations, regulatory incentives that enable the offsetting of operating costs – such as by on site powering or co-locating – need to be encouraged.
Information request 5.3 Reforming regulations to support the recovery of value from organic waste	Recovering maximum value from organic waste requires a nationally consistent regulatory approach that recognises Australia as one (1) market. Both residual waste materials and end-products necessarily move across borders all the time, and opportunities to strengthen markets of recycled organics is severely constricted by the different approaches of the states – particularly in relation to contaminant inputs and outputs. Closing the loop on organics requires strong and consistent regulation at the start of the supply chain. There is an interconnectedness of regulatory issues that need to be addressed to support the recovery of value from organic waste relating to restricting contaminants that enter Australian supply chains, providing certainty around safe levels physical and chemical contaminants and mandating procurement levels. Reforming these key regulations would complement educative efforts already underway to minimise contamination of recovered organics waste streams. *Restricting harmful contaminants* WMRR has consistently advocated restrictions on potentially harmful chemical and physical contaminants that can hinder options for re-use, recycling and re-manufacturing, particularly for recycled organics. A good example of suitable legislation is the *EU Packaging and Packaging*

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	Waste Directive (PPWD – Directive 94/62/EC) which lays down measures to prevent the production of packaging waste, and to promote reuse of packaging and recycling and other forms of recovering packaging waste. To prevent adverse health effects, the text includes a ban on the use of so called "forever chemicals" (per- and polyfluorinated alkyl substances or PFASs) above certain thresholds in food contact packaging. WMRR has been calling on the Federal Government for years for much tighter restrictions on what can be designed and placed on market and how it is managed, including adopting existing labelling and registration schemes such as the Classification, Labelling and Packaging (CLP) and Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) programs. These exist under the European Union (EU) Waste Directives, which monitor and manage the use of these chemicals however they also importantly provide public awareness of the presence of these chemicals in products purchased, yet Australians have no such protections. Australia's Circular Economy Framework (December 2024) does not even refer to PFAS or identify any specific chemicals of concern. The Framework only broadly refers to "green chemistry" and "…regulation and policies supporting safe chemical substitution are essential to driving innovation and use of circular materials in the Australian economy. High-efficiency detection technologies are another important enabler for real-time identification and removal of chemicals of concern from circular supply chains". This does not deliver anything tangible or commit to, any decipherable action at this stage. As Australia moves towards source separated food and organics collections, the potential for chemical contaminants to enter into recycled organic end products is pertinent – particularly with the tolerance shown by some jurisdictions for materials that are not strictly food organic or garden organic material. This logic is backed by the EPA's "What's the Go with FOGO" research which highlighted the need for better quality control of what ends up in the green-lid bin and better removal of physical contaminants before processing. That report indicated that chemical contaminants ended up in composts and could be traced back to seemingly 'innocent scope creep' in the materials accepted as inputs in kerbside collections. In order for an economy is to be truly circular, then there must be baseline requirements (set by mandatory sustainable product design requirements) to ensure the circularity of materials within it. It is WMRR's view that chemical requirements should be included within the federal mandate for packaging design and labelling requirements. *Establishing agreed safe levels of chemical and physical contaminants* It is WMRR's firm view that there is a crucial role for government to play in mandating product standards in order that pollution and chemical contaminants can be designed out of product supply chains in so far as possible. This is particularly important given Australia's transition to a circular economy and mitigating the risks of PFAS and other chemicals of concern in the environment. Given that the industry is flooded with guidance or State of Knowledge documents such as the NEMP 3.0, Biosolids Guidelines for NSW and AS4454 product standards, WMRR supports aligned efforts to establish clear and certain thresholds for contaminants, such as PFAS, in order that materials can be recovered that are fit for

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	purpose. Currently, the Victorian EPA's Classification of PFAS impacted soils provides a legal pathway for reuse of waste soil containing low level PFAS. Queensland is looking at adopting similar thresholds. Other jurisdictions such as NSW have implemented guidance documents that pre-classify common materials as general wastes, providing industry and the community with certainty as to when a material can be treated as a general waste and not necessitate testing, however it is unclear how the recent release of the NEMP 3.0 will impact state approaches. This just causes more uncertainty for industry and lack of confidence in organics products – particularly in the case of PFAS levels, which as noted above, can be impacted by scope creep of input materials into source separated organics collections (particularly with regard to food packaging). WMRR reiterates that the ubiquitous nature of PFAS in the environment currently means that it can be difficult and costly to "manage" end-of-pipe to a point of nil- detection or very low threshold. National alignment on agreed safe levels for contaminants would help protect the existing organics recycling industry, alleviate concerns about potential harms and build consumer and investor confidence in their use. Those materials with direct exposure pathways for human consumption should necessarily be considered higher risk, however, those low-risk applications should not be held to the same conservative standards. This is especially the case for the WARR sector which is already tightly regulated with strict sampling and testing requirements for its outputs including odour and emissions, wastewater, and product applications to land. *Mandated Procurement* As aforementioned, there is an opportunity for the government to propel end-markets for recovered organics through mandated levels of sustainable procurement. WMRR's commentary around the inclusion of organics products within procurement policies and thresholds for major infrastructure projects have already been addressed in our response to Information Request 4.4.
Textiles and clothing	
Reform direction 6.1 Protections for consumers of textiles and clothing	WMRR supports this reform direction, which as per the European experience could sit under a waste directives framework. WMRR notes that the EU is preparing to implement the Green Claims Directive. The Green Claims Directive aims to stop companies from making misleading claims about the environmental merits of their products and services and combat greenwashing. Companies must verify their claims through a verified third party and ensure they are scientifically substantiated.
Information request 6.2 Product labelling for textiles and clothing	WMRR is supportive of mandatory labelling schemes as refers to the Green Claims Directive as a good model for Australia to replicate, noting that voluntary schemes, whilst well intended, can lead to consumer confusion and opportunities for greenwashing with 'similar' labels. This has been the experience in other product areas, notably, plastic packaging ("compostable", "home compostable", "biodegradable", "oxy-biodegradable" "recyclable" etc.).

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Information request 6.3 Textiles and clothing product stewardship schemes	WMRR is supportive of the existing voluntary industry led schemes ASBC and Seamless, we do however believe that there often can be beneficial impact of moving to a mandatory scheme (for any sector) to address issues such as free riders, to ensure that it necessarily places obligations on all producers. This would level the playing field and eradicate opportunities for consumer confusion, free riders and greenwashing claims.
Mining	
Reform Direction & Information request 7.1 Reducing regulatory barriers to circular economy opportunities for mining waste and alternative post-mining land uses	WMRR supports this reform direction, noting that former mine sites can provide optimal locations for much needed WARR facilities. WMRR encourages the PC to recommend the streamlining of review and approval processes for the placement of essential infrastructure – such as WARR facilities – on decommissioned industrial and mining sites, noting that these facilities would have former approvals for a similar use, and would likely be in proximity to suitable workforces.
Information request 7.2 Ways governments could facilitate circular economy opportunities for mining waste and alternative post-mining land uses	As noted above, there is a real opportunity for state governments to recognise the essential nature of WARR facilities – being interconnected to all aspects of the circular economy, and facilitate the streamlining of regulatory approval and review pathways for applications to repurpose existing mining facilities as WARR facilities on this basis.
Vehicles	
Recommendation 8.1 Evaluating the Motor Vehicle Service and Repair Information Sharing Scheme	WMRR has no comment on this scheme, noting that the aims of the Motor Vehicle Service and Repair Information Sharing Scheme (MVIS) are to level the playing field for the automotive repair sector and promote fair competition between independent and larger repairers. Rather than focus on repair at end-of-pipe, WMRR advocates for more attention to be placed further up the supply chain, starting with the mandate of sustainable design and extended producer responsibility for vehicles.
Information request 8.1 Targeted measures to improve the collection and recovery of off-the-road tyres	WMRR supports a mandatory EPR scheme when industries are not being successful, we have seen significant investment in Australia post the introduction of export regulations to reprocess tyres. The challenge is increasingly mining and agricultural tyres. According to the Tyre Stewardship Australia's 2023 report Tipping the balance - The business case for a circular economy for Australia's off-the-road tyres, conveyors, and tracks, the mining and resources sector which is the largest generator of OTR EOLTs at about 50,000 tonnes per year. Queensland, another largely resource driven economy comes second at around 46,000 tonnes (34%) and NSW at around 25,000 tonnes (18%).

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	If Australia is serious about bringing tyres into the circular economy, then we must mandate product design requirements which provide a pathway to keep the valued resources within tyres being reinvested into our economy. Given also the unique challenges of Australia's vast geography, a "one size fits all" approach cannot be strictly applied, and the range of recovery options available for EOLTs in the context of their specific end-uses, possible markets and locations, need to be considered within the framework.
Reform direction & information request 8.2 Establish the foundations of a robust end-of-life electric vehicle battery industry	In WMRR supports this reform direction in principle to develop a co-regulated product stewardship scheme, noting that: • there may need to be more work done on the development of second-life EV battery products, to ensure that any introduced scheme does not result in stockpiling and aggregating materials with no circular outcome, and • storage of these materials is likely hazardous with significant fire and safety risks – reinforcing the need to secure offtake markets for these products.
Household, consumer and emerging electronics	
Recommendation 9.1 Introduce a product labelling scheme for household appliances and consumer electronics	WMRR acknowledges that the PC is renewing its recommendation from its Right to Repair inquiry, proposing labelling scheme about the durability and repairability. WMRR supports this recommendation, but reiterates that this also falls within the context of Extended Product Responsibility (EPR) to better lengthen the lifespan of products and better manage end-of-life.
Recommendation 9.2 Include reuse and repair targets in the NTCRS and increase the use of tracking devices	WMRR supports this recommendation and reiterates that this falls within the context of Extended Product Responsibility (EPR) to better lengthen the lifespan of products and better manage end-of-life.
Information request 9.1 Barriers to greater reuse and repair	The main barrier to greater reuse and repair is the lack of mandatory producer extended responsibility. WMRR reiterates that in a circular economy, obligations must be placed on producers to remain compelled to participate in all parts of the product lifecycle including sustainable design standards. However, the barriers to greater reuse and repair whilst strongly linked to poor design, are also linked to consumption behaviours. Australia currently lacks comprehensive EPR scheme similar to Europe's Waste from Electrical and Electronic Equipment (WEEE)(WEEE Directive 2012/19/EU), which requires the separate collection and proper treatment of WEEE and sets targets, makes it difficult to export electronic and electrical waste, and harmonises electrical and electronic equipment monitoring and reporting. As such WMRR has real concerns that Australia will become a dumping ground for products that do not meet the standards of other countries, such as those in Europe, resulting in increased electrical and electronic waste.

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Reform direction & Information request 9.2 Product stewardship for small electronics, including embedded lithium-ion batteries	WMRR supports this reform direction and encourages the PC to support the adoption by all states and territories of the *Product Lifecycle Responsibility Bill (NSW) 2025* rather than supporting existing voluntary industry led schemes. WMRR has advocated extensively for a national mandatory regulated scheme for the end-of-life management of batteries including battery powered items. The WARR industry are not the manufacturers of these products, but we are the ones dealing with the financial and safety consequences of having these products in circulation. The cost and the danger to life posed by lithium-ion batteries is completely unacceptable Industry collectively has been calling on Ministers to address what we consider to be a significant cause of these fires, that is, the lack of appropriate collection infrastructure for battery powered products including, for example, consumer electronics and e-micromobility devices. The NSW Act provides a pathway towards national mandatory product stewardship for embedded batteries. Currently, the Battery Stewardship Councils scheme, B-Cycle, authorised under the Commonwealth, is a voluntary industry-led product stewardship scheme that we understand has 31% industry participation. This means that there is a significant challenge with '*free- riders'* who avoid paying the levy, undermining the market position of those that participate, by underpricing their products. In 2024, the Scheme only collected 14.7% of eligible batteries placed on market, meaning there was leakage from the scheme with a significant amount arguably being placed in traditional WARR collection systems, creating significant risk to our industry. The NSW Act proposes to establish a mandatory product stewardship framework for brand owners of certain products and will give the ability to establish a product stewardship scheme for a particular product and provides the legislative framework to ensure that there is regulatory oversight of a product stewardship organisation when dealing with products that can cause harm. The framework established under the Act allows the Minister to prescribe, by regulation, requirements across the entire life cycle of a product, including the development, design, creation, production, assembly, supply, use or re-use, collection, recovery, recycling or disposal of the regulated product. WMRR understands that this legislation is intended in the first instance to be used to provide a framework for the regulation of product stewardship for e-micromobility batteries. The second step of this process will be to draft regulations to make product stewardships mandatory for problematic products, including certain classes of battery where there is an existing Commonwealth stewardship accreditation. WMRR has urged all state and territory governments to adopt mirror legislation, create a mandatory stewardship scheme and work with NSW to create a mandatory national scheme to address these ongoing risks to both the WARR industry and the community.
Reform direction & Information request 9.3 Product stewardship for small scale PV systems	WMRR supports mandatory product stewardship for small scale PV systems, noting that sufficient processing infrastructure and markets must be established to avoid aggregation and stockpiling of these materials. We need to ensure that any scheme developed does not simply become a collection and aggregation scheme as was proposed by the Federal government's *Wired for Change* discussion paper. Rather we need funded end to end EPR including design standards and market offtake, particularly given the number of valuable metals and resources used by PV.

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System-wide arrangements	
Reform direction & Information request 10.1 Governance arrangements to harmonise regulations that pose barriers to circularity	WMRR's supports the approach of looking to bring the Commonwealth under a waste directives framework to remove barriers to circularity for all materials, rather than take a piecemeal approach to tweaking existing regulations. Under such a framework, mandated sustainable product design regulations and EPR schemes, market development initiatives (such as government procurement of locally sourced recycled content) and the application of policy initiatives such as recovered material framework and regulatory support for applying the waste management hierarchy to preference resource recovery initiatives should be supported by the federal government. These elements work together to 'level out the playing field' between virgin and secondary raw materials by placing a positive obligation on those that make products, to take responsibility for their products and their impacts (environmentally or economically). In the absence of such a clear framework, Australia will continually struggle to meet both its circular and resource recovery objectives, as there will continue to be an advantage for virgin materials – which already have market share, proven performance capability for their intended use and economies and efficiencies of scale afforded by global markets. The Directives approach taken by the EU has been successful in harmonising different member countries to removing barriers for circularity across multiple market sectors. WMRR reiterates the significance of taking this higher order approach to designing out waste and enshrining producer obligations into regulation as a first step towards creating a circular economy – rather than attempting to address individual existing linear supply chains one by one and trying to find ways to close the loop by placing additional burdens on those at the end-of-pipe.
Reform direction & Information request 10.2 Supporting coordination, facilitation or brokering services	It has been a theme in this submission that WMRR supports extended producer responsibility with emphasis on sustainable design of products. Together, these elements should encourage circular outcomes and investment in processing infrastructure and markets for the recovered materials.
Reform direction 10.3 Supporting greater adoption and diffusion of circular innovations	WMRR reiterates that circular innovations are supported by regulatory settings that aim to design out waste. This in turn provides security of investment and access to end markets (particularly if mandated thresholds are in place for the uptake of secondary raw materials). Without this fundamental principle of mandated sustainable design, there is no driver for innovation.
Information request 10.4 Improving investor confidence in the circular economy	As noted above, investor confidence in the circular economy is buoyed by clear regulatory settings and mandates requiring mandatory sustainable design and real EPR. Under a waste directives network, these mechanisms to enforce product makers to do better so that we can use less for longer. Implementing a clear directive framework will facilitate investor confidence. Investor confidence will also improve once the market opportunities to displace virgin materials are appreciated. The interim report has identified, more or less, that the key hurdle to transition to a circular economy is ensuring that recovered materials are competitive, and eventually favoured over, their virgin counterparts.

Interim Report Reference	WMRR Feedback
	As mentioned in Information request 4.2, understanding the limited virgin resources available locally can help appreciate opportunities that exist in the market for secondary raw material alternatives. This necessarily requires a level of reporting of virgin materials, as well as an understanding of how much exists withing certain distances to make procurement reasonable. For example, if it was known that there was only a certain volume of specific virgin materials available in coming years, this would assist in future planning and investment of both the construction industry and the WARR industry to utilize recycled material counterparts. This need to include data measuring and monitoring the use and demand of virgin materials is an important metric for determining opportunities to unlock the circular economy.
Reform direction & Information request 10.4 Government support for place-based circular initiatives	The role of WARR in providing essential waste and resource recovery services does not seem to be given adequate weight when considering planning and regulatory applications. WMRR strongly supports government approaches that facilitate the use of existing infrastructure - either decommissioned industrials sites, or opportunities for colocation - to provide enhanced circular outcomes. These sites are already established with links to transport and power networks, access to workers and built infrastructure, which can bring down operating costs and make circular projects more attractive. They also afford benefits of having existing approvals for similar activities, which can be a barrier to expanding or setting up WARR facilities (particularly where communities are fearful of potential negative impacts such as noise, odour, pollution and increased traffic).
Reform direction & Information request 10.5 Expanding the set of circular economy indicators	A productive circular economy is one that successfully minimises the use of virgin resources and the creation of waste materials and instead identifies opportunities to reinvest resources back into the productive economy. Appropriate metrics to show year-on-year progress towards a circular economy should show increased economic investment into recovered resources over virgin materials. Ideally a circular economy measurement framework would be adopted and coordinated nationally. Australia's current key waste and resource recovery metrics - 'waste generated per person' and 'resource recovery rate' - do not capture the fundamental elements of: • avoiding creating waste (e.g. through designing for re-use or using less in production), • establishing systems to prolong life (e.g. repair and share), • market demand for the secondary material (recovered resources and designing as such) and, • in no way demonstrate whether their 'recovery' use held significant environmental benefits such as displacing the use of virgin resources or fossil fuels. WMRR again re-emphasises the benefits of a Commonwealth waste directives framework under which opportunities for accurate data capture will necessarily arise from: • Mandatory EPR schemes and design standards. Registering for mandatory schemes would enable many of these baseline metrics to be captured.

Interim Report Reference	WMRR Feedback
	• Government procurement policy settings that require minimum recycled content thresholds. These could also be tracked to show progress in relation to the displacement of using virgin materials. • Supply chain transparency and traceability is possible via smart technologies to track movement of materials, and this data can be used to determine the actual lifecycle of materials and products, and help identify opportunities to improve. WMRR notes the sensitivities surrounding the capture of additional information by waste depots and local government noting in particular that there is already a heavy regulatory reporting burden on these facilities, and any additional must add value without adding costs. However, it should be emphasised that the concerns raised do not undermine the potential for broad category data to be recorded and captured. For example, data capture from individual sources can be aggregated when published to show the displacement of virgin materials by recovered materials. *The Circular Advantage* report recommended that three (3) indicators serve as the foundation for Australia's circular economy targets: material footprint – measuring the per capita demand for raw materials, material productivity - a ratio showing a raw materials economic output to the amount of material consumed, and resource recovery rates. Whilst these are a good basis, WMRR emphasises the opportunity to capture the benefits of recycling and reuse beyond the initial benefits of displacing virgin material demand and upfront carbon abatement associated with the amount of material collected and diverted from landfill. For example, the benefits of using reprocessed material in terms of offsetting greenhouse gas emissions associated with processing and transporting a tonne of virgin material should also be captured. WMRR stresses the need for the monitoring and reporting of these metrics to occur as business as usual for *all* materials in our supply chains – secondary and virgin. The ongoing burden placed by government on those that recycle and not on those that extract and use virgin material is yet another barrier to levelling the playing field. Commonwealth coordination of mandatory EPR, recycled content thresholds enshrined in policy and the use of smart technologies for tracking all materials will facilitate this level playing field by placing responsibility back on producers to manage their products throughout their lifecycle, and encourage uptake of secondary raw materials.