



Senator Andrew Bragg
Chair
Select Committee on Productivity in Australia
PO Box 6100
Parliament House
Canberra ACT 2600
Email: productivity.sen@aph.gov.au
Submission uploaded via [online portal](#)

20 February 2026

Dear Senator Bragg

Re: Select Committee Inquiry into Productivity in Australia

The Waste Management and Resource Recovery Association of Australia (WMRR) is the national peak body representing Australia's \$21 billion waste and resource recovery (WARR) industry. With more than 2,300 members from over 400 entities nationwide, we represent the breadth and depth of the industry including representation from business organisations, the three (3) tiers of government, universities, and Non-Government Organisations (NGOs), including research bodies. WMRR values this opportunity to make a submission to the Select Committee; having reviewed the [Discussion Paper](#) and Terms of Reference, WMRR wishes to draw the Committee's attention to crucial link between materials productivity and Australia's current approach to managing waste and recoverable materials. This is a subject area WMRR will be exploring in our inaugural *State of the Nation of Waste and Resource Recovery* report, due for release later this year, which seeks to measure the value of the WARR industry to the Australian economy, including identifying economic and emissions savings and opportunities associated with for example, the displacement of virgin materials with secondary recovered materials.

Australia recovers approximately 66% of its discarded materials, yet material productivity gains remain constrained because the system has limited focus on avoidance of disposal and considers this as 'resource recovery' as opposed to identifying end-market demand for the secondary recovered materials produced and the value of displacing virgin materials and the productivity gains from using less material for longer. To improve materials productivity, much more needs to be done to encourage secondary recovered materials to commercially compete with virgin materials in both local and global markets. At present, there is limited government leadership incentivising or mandating the use of secondary recovered materials, and (unlike overseas) no government legislation mandating the sustainable design of products to reduce wastage in the supply chain, which means for many products, recovery – including recycling, repair and reusability – are not embedded at the product design stage.

WMRR notes the broad terms of reference for this inquiry and has focused upon:

WMRR NATIONAL OFFICE
57 ST JOHNS ROAD
GLEBE NSW 2037
(02) 8746 5000
INFO@WMRR.ASN.AU

WMRR.ASN.AU

- the current position and opportunities to gain productivity growth (c) – noting the real opportunity Australia has to lift its materials productivity in light of the recently adopted *Circular Economy Framework* and the ongoing review of the *Recycling and Waste Reduction Act 2020*.
- conflicts of interest and structural barriers to sustainable growth (d) – with reference to the current market and regulatory conditions for secondary recovered materials making it uncompetitive with virgin material counterparts (i.e.: plastics).
- opportunities for the states and territories to drive growth (f) – of secondary recovered materials markets (with government action) and consequent targeted investment in strategic infrastructure.
- priority opportunities in the market and non-market sectors for productivity growth (i) – materials productivity should be a priority and improving data and reporting on materials productivity metrics spanning both virgin and secondary recovered materials would indicate current opportunities and gaps.

The current position and opportunities to gain productivity growth - lifting Australia's materials productivity

“Productivity is a measure of how efficiently an economy turns inputs—such as labour, capital and resources—into outputs, such as goods and services. Productivity growth occurs when an economy produces more output from the same input and/or maintains output with fewer inputs. (Discussion Paper)

WMRR reiterates the inextricable link between materials productivity and Australia's current approach to managing discarded materials. According to the *Circularity Gap Report*, more than 90% of materials are either wasted, lost or remain unavailable for reuse. To reinvest more of our valuable materials back into the productive economy, it is essential that materials productivity is not considered as a ‘downstream’ and ‘waste’ issue — but an upstream economic design challenge. Current policy, regulatory and economic settings remain predominantly focused on “waste outputs” rather than upstream design, which if addressed will resolve issues with material efficiency and market demand for secondary recovered materials.

The traditional linear economic model of “take, make, waste” carries substantial material risk of losing valuable commodities and material streams by generating waste across the value chain — from the energy required to manufacture and transport goods, through to packaging impacts and the loss of value at end-of-life. Long-term economic resilience — along with net-zero emissions targets, and nature-positive ambitions - cannot be achieved while economic growth strategies remain dependent on these linear supply chains and fails to decouple productivity from natural resources. The emergence of stronger regulatory drivers for circularity — including Australia's *Circular Economy Framework* and evolving global sustainable reporting standards such as the *Global Circularity Protocol* and the *Corporate Sustainability Reporting Directive (CSRD)* means that the circular performance of materials is becoming both measurable and increasingly expected in global markets. Without structural reform that includes the entire supply chain, Australia will struggle to lift material productivity, impacting its own productivity and will remain exposed to global market trends and pricing, driving emissions given that this can offer continue reliance on virgin materials.

Australia's materials productivity cannot improve if:

WMRR NATIONAL OFFICE
57 ST JOHNS ROAD
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- Virgin materials remain structurally cheaper than secondary recovered materials.
- Product design obligations to design out waste and increase circularity are voluntary.
- Procurement frameworks fail to create demand for secondary materials.
- Australia's carbon policy continues to focus on disposal rather than recovery and the role that improved material management can play in driving down emissions.

Australia has already taken the first step towards lifting its materials productivity through the release of the *Circular Economy Framework* which targets to lift material productivity by 30% - whilst doubling Australia's circularity rate, reducing the per capita material footprint by 10% and safely recovering 80% of resources by 2035. These are productivity reforms, not simply environmental goals. Material productivity — economic output per unit of material input — is also a competitiveness issue.

Increasing materials productivity improves supply chain resilience- it reduces exposure to global commodity shocks, stimulates domestic remanufacturing, and drives regional employment in circular industries. Failure to reform the current system will entrench virgin materials' advantage over domestically manufactured and recovered materials, increasing long-term system costs.

Increasing materials productivity in Australia requires:

- a. A legislative framework such as a Commonwealth waste directives framework or *Circular Economy Act*. The existing *Recycling and Waste Reduction Act 2020* does not support increased materials productivity.
- b. Mandatory sustainable product design obligations and extended producer responsibility (EPR).
- c. Market pull-through via mandated procurement and recycled content thresholds, which the current Commonwealth Sustainable Procurement Policy fails to do.
- d. Data reform to level the playing field between virgin and secondary recovered materials.
- e. Financial and carbon frameworks that recognise the value of secondary recoverable materials.

Market demand, data tracking the movement of both virgin and secondary recovered materials, and design requirements for all products entering Australian markets to be designed for circularity will underscore investment in facilities and technology, increasing positive economic outcomes for Australians.

- a. *The existing legislative framework does not promote materials productivity.*

End-of-pipe regulation for resource recovery cannot deliver meaningful material productivity gains. Materials productivity requires intervention at the front of the pipe, with the fundamental issue being that we need product design standards and requirements for producers to take responsibility for the materials that they place on the Australian market. Producers need to have regulatory and financial incentives for designing out waste and designing products for circularity so that the constituent materials can retain value and be reinvested into the economy.

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The existing *Recycling and Waste Reduction Act* (RaWR) 2020 focuses on export controls and stewardship schemes but does not fundamentally regulate sustainable product design or instill generator responsibility for products placed on the Australian market. Its' stated objective is to reduce the environmental and human health impacts of products and waste. However, without mandatory sustainable product design and clear generator responsibility across the full product lifecycle, the *RaWR Act* 2020 cannot achieve its intended outcomes as it only applies end-of-pipe measures for products that are placed on the Australian market once they are discarded. Given the minimal import restrictions and weak design standards, Australia risks becoming a destination for lower-quality products that do not meet higher international benchmarks, (such as those under the *EU Waste Directives Framework*). This outdated approach results in:

- Continued entry of poorly designed, short-lived products into Australian supply chains.
- Ongoing contamination risks (e.g. PFAS, microplastics and hazardous inputs) which inhibit the ability to produce safe and appropriate secondary recovered materials.
- Downstream cost burdens placed on the waste and resource recovery (WARR) industry to 'clean up' materials presented for recovery, remanufacturing and recycling, and
- Secondary recovered materials competing against subsidised or globally advantaged virgin materials.

Export controls in the absence of sufficient market development, infrastructure investment and demand-side reform, have not resolved the structural disconnect between community recycling efforts and the limited domestic capacity to reprocess and use recovered materials. Investment in plastic reprocessing has been uneven nationally, and local recycled content continues to struggle against cheaper imports. For example, processed, flaked and pelletised recovered plastic, is a commodity but has not been treated in the same way as virgin material. The export restrictions have added complexity and delays for those attempting to export to manufacturing facilities that have demand when there has been limited or no demand in Australia. Processors of secondary recovered materials that have market demand should not be subject to yet another level of regulation- again making the playing field, with virgin materials uneven, as well as failing to recognise there are no restrictions being placed on imports.

Existing stewardship schemes under the *RaWR Act* 2020 have largely become collection systems rather than genuine Extended Producer Responsibility (EPR) schemes that place lifecycle responsibility onto producers, therefore failing to establish end-markets or address design flaws. The OECD defines EPR as an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of its life cycle. This approach underlines the idea that producers must take financial and/or organisational responsibility for their products' end of life through measures applied throughout their life cycle, from design to management of waste generated by these products. Over time, EPR encourages companies to produce more sustainably, innovate and contribute significantly to reducing their own environmental impact. In particular, voluntary product stewardship schemes - such as those for packaging - have often become limited collection schemes rather than system redesign mechanisms passing the cost on to others while doing little to manage the economic or environmental impact (and why would they when they do not have to?). WMRR supports mandatory EPR schemes with enforceable design standards, but broader sustainable design requirements and generator obligations must also apply beyond just stewardship schemes.

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A real priority for government must be to regulate the start of the supply chain to ensure that safe, quality products are placed on market in the first place and inclusive of secondary uses and end-of-life management. This goes beyond patchwork EPR and simple take-back. This necessitates 'front of pipe' mandatory product design requirements and extended producer responsibility schemes that squarely place responsibility on generators to design out waste. These responsibilities must be placed on both local and imported goods placed on market. Embedding clearly, economy-wide producer responsibility would reduce the risk of inferior imports, level the playing field, and drive stronger circularity outcomes for both the economy and the environment.

The statutory review of the *RaWR Act 2020* (for which consultation closed in February 2025) presents an opportunity to reposition the *RaWR Act* as a top-down instrument to ensure products entering Australian supply chains are designed for circularity and supported by generator obligations across their lifecycle, reinforced by incentives that favour secondary over virgin materials. Whilst Australia has a *Circular Economy Framework*, Australia requires government led intervention to establish an overarching national legislative framework similar to the EU Waste Directives model. This should ideally be legislated through a *Circular Economy Act*, as recommended by the Circular Economy Ministerial Advisory Group's final report [The Circular Advantage](#). Such a framework would:

- Mandate sustainable product design.
- Embed extended producer responsibility (EPR) for imported and locally produced goods.
- Establish baseline circularity requirements for all products entering the Australian market outside of voluntary stewardship schemes such as restricting hazardous substances in products.
- Harmonise state regulations – noting that in some Australian jurisdictions, regulatory frameworks are in place to enable some 'resource recovered' products to be exempt as waste.
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b. *Mandatory Sustainable Product Design*

Materials productivity begins with design. Without sustainable design, downstream recovery becomes more expensive and less productive. Whilst it is essential that recovered materials are only reinvested into the economy where it is safe and appropriate to do so (particularly with respect to emerging contaminants such as PFAS and microplastics), evidence-based decision-making is essential; poorly applied precaution can stifle innovation and increase costs.

As mentioned above, EPR places responsibility on product generators to design products for circularity and longer lifespan rather than leaving the WARR industry to manage systemic design failures and unnecessary waste. Mandatory EPR would internalise lifecycle costs thereby create price signals that reward material efficiency, fund end-to-end infrastructure for managing the product, and the mandatory nature would negate free-rider issues that have burdened numerous voluntary stewardship schemes.

c. *Support market demand via mandated procurement and recycled content thresholds*

The inherent advantage virgin materials have over secondary recovered materials (cost and consistency) for remanufacturing, is a significant structural barrier to the sustainable growth of our economy by uplifting materials productivity. It also ignores the negative environmental impacts that material extraction causes. The current system settings disadvantage secondary recovered materials by:

- Imposing complex regulatory burdens on recovered materials that do not apply to virgin materials
- Failing to mandate recycled content thresholds in government procurement
- Not consistently recognising embodied carbon benefits or secondary recovered materials in climate frameworks

The lack of demand for secondary recovered materials from government procurement and broader industry that produces these products at first instance has led to underinvestment in domestic capacity for processing, despite government capital funding initiatives such as the Recycling Modernisation Fund (RMF). While the RMF was designed to boost recycling infrastructure following government bans on waste exports, it fails to target the investment where it was required and did not form part of a wholistic policy to drive market demand for the materials made to enable sales and economic viability, there quite simply has not enough been done to create a robust, sustainable domestic market for recycled materials, meaning the benefits from investment, local job creation, reduced reliance on virgin materials and emission benefits have not been realised.

The market preference for cheaper imports, a lack of local demand for secondary recovered materials and consequently, a lack of progress towards circular innovation within Australia has resulted. Demand-side reform is essential to underpin a transition to a circular economy that values secondary recovered materials, and genuine public procurement reform is the fastest lever to displace virgin materials at scale. It follows that government should mandate minimum recycled content thresholds in all government contracts (i.e. not the current requirement to ‘consider’) – particularly public infrastructure given the ease and suitability for using recycled organics, recovered soils and recovered metals. At a minimum, it should be embedding a policy akin to Victoria’s “Recycled First” to drive market pull through of secondary recovered materials across the country.

Government levers such as economic incentives and recycled content thresholds - can change the relative costs of materials, waste disposal and labour, to ensure that increased resource productivity is better aligned with economic efficiency and business profitability.

d. Data reform to identify the gaps and help level the playing field between virgin and secondary recovered materials.

Australia’s current productivity measurement frameworks do not measure either genuine life cycle impacts and costs nor the contribution made by the secondary recovered materials sector and these metrics should be reformed to track virgin materials displacement. The ability to ‘waste’ externalised costs and ‘linear’ metrics such as ‘waste generated per capita’ and ‘resource recovery’ rate do not measure material productivity and how Australia’s use of secondary recovered materials avoids virgin minerals extraction, the performance of reuse and repair for material streams in displacing the importation of ‘new’ materials, or demonstrate the market share of secondary recovered materials as compared to virgin products. For a productive economy, better data (and emphasis) is needed on material stocks, flows and future supply risks. Materials that are not measured cannot be effectively managed – data capture is important to determine opportunities for progress and improvement. Improving resource productivity requires knowing:

- The amount, type and quality of material entering the Australian market. With regard to discarded materials (i.e. waste) it is important to measure beyond that is collected at the kerbside by councils and

also capture materials within commercial and industrial (C&I) and construction and demolition (C&D) streams.

- Where material is generated.
- Where material ends up and in what state.

Currently, Victoria is the only jurisdiction to report against new circular economy measures under Australia's *Circular Economy Framework*. Victoria reports on three (3) metrics: circularity rate, material footprint and material productivity, aligning with *The Circular Advantage* which recommended these metrics. Metrics can drive better investment decisions that facilitate innovation and local capacity and capability. High-quality materials data can transform behaviour, markets and policy. This is why the circular metrics such as those undertaken by Victoria in their [Circular Economy Market Report](#) are so important. Attaining quality reliable data about the materials fates and flows nationally will also support infrastructure planning and drive investment into facilities and technology upgrades for appropriate locations. WMRR would recommend that the government adopts-

- Material footprint accounting.
- Material productivity,
- Mandatory reporting on virgin and secondary material flows – this goes beyond the circularity rate used in Victoria, which reflects the percentage of recycled materials within the total materials used in the economy. Government should adopt better metrics to show the flow of both virgin and secondary materials so that appropriate policy and legislative levers can be adopted to address the preference for virgin materials and underpin investment in local secondary recovery capacity.

e. Financial and carbon frameworks that recognise the value of secondary recovered materials

Material productivity is also a carbon mitigation strategy, as recovered materials avoid extraction emissions, reduce embodied carbon and displace high-carbon industrial inputs. For example, recycling metals saves significant energy compared with primary extraction (e.g. aluminium). Material productivity in Australia could be improved if government frameworks:

- Integrated the ACCU scheme into resource recovery and circular infrastructure - providing financial certainty for investors to make resource recovery / remanufacturing projects viable, and did not effectively drive material into landfill and
- Extended the Guarantee of Origin scheme beyond energy to materials, recognising recycled and remanufactured materials. Renewable energy has been incentivised through the guarantee of origin scheme. Similarly, a "Product Guarantee of Origin" for secondary recovered materials would validate embodied carbon advantages and support trade competitiveness

The opportunity for increased materials productivity and infrastructure investment

As discussed above, the environment for investment in secondary recovered materials processing has been hindered by the lack of market demand signals for these materials. WMRR advocates consistently for priority waste and resource recovery infrastructure dependent on the needs and material flows of the region –



something that can be determined through state infrastructure planning and using reliable data to show the fates and flows of materials. Investing in critical infrastructure - including essential facilities to manage the community's discarded materials - supports population and market growth. Boosting the economic strength of regional Australia in particular is fundamental to lifting national productivity. Establishing materials processing infrastructure supports local jobs, reduces transport and logistical costs between the point of reprocessing and end-markets. When regional population growth is supported by the right enabling infrastructure, it delivers more resilient supply chains, greater economic outputs and reduced strain on metropolitan housing and infrastructure.

Lifting material productivity can improve Australia's competitiveness and resilience. WMRR stresses that much of what is currently labelled "waste" still has value and should be treated as a recoverable resource. However, it does require investment, paradigm shifts and government recognition throughout the supply chain to support EPR, safe product development and secondary demand for materials placed on the Australian market.

WMRR would welcome the opportunity to provide evidence at hearing or supply further details on this matter. We anticipate that our inaugural report – *The State of the Nation of Waste and Resource Recovery* – will be released in May 2026.

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