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Submitted via [Online Portal](#)

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Dear Mr Spear

Re: Victoria's next 30-year infrastructure strategy

Thank you for the opportunity to provide feedback on *Victoria's draft 30-year infrastructure strategy* ("Draft Strategy") to Infrastructure Victoria. The Waste Management and Resource Recovery Association of Australia (WMRR) is the national peak body representing Australia's \$17 billion waste and resource recovery (WARR) industry. With more than 2,300 members from over 410 entities nationwide, we represent the breadth and depth of the sector, including representation from business organisations, the three (3) tiers of government, universities, and Non-Government Organisations (NGOs), including research bodies. In Victoria, WMRR represents over 530 individual members from more than 90 entities. The state generates 19 million tonnes of waste each year with a resource recovery rate of 67% delivering an economic value of \$3.72 billion employing 12,300 Victorians.

WMRR's members are involved in a range of essential activities within the Australian economy, including infrastructure investment and operations, collection, manufacturing of valuable products from resource recovery, energy recovery as well as community engagement and education. Being at the forefront of the evolution towards a whole-of-system WARR approach, including the development of a circular economy, WMRR strongly advocates for a systems-based approach to managing material in Australia with the clear goal of using less for longer. This includes fierce advocacy for the waste and resource management hierarchy, promoting avoidance of waste, and the diversion of suitable materials from landfill through preference for reuse, recovery, recycling and composting. WMRR also emphasises design, extended producer responsibility and the provision of clear pathways for the use of secondary raw materials in order to keep valuable materials in circulation at their highest and best use for longer.

Key to WMRR's advocacy is to urge *all* levels of government to apply a systems lens and consider WARR within the context of broader supply chains and systems. This encompasses design considerations, to avoid the creation of waste and pollution at first instance, through to delivering efficient and effective waste and recycling systems across education, health, accommodation, transport and public infrastructure projects, including enabling the provision of secondary raw materials as alternatives to sourcing virgin for new products. As such, given the key role we play for both the economy and environment, it is vital that the essential WARR industry is duly considered when forward planning for Victorian infrastructure to ensure continued alignment with and progress towards the state's net zero, resource recovery and circularity targets.

The Victorian government is already committed to creating a circular economy and reducing waste. Victoria's recycling targets include diverting 80% of waste from landfill by 2030, cutting total waste generation by 15% per capita by 2030 and halving the amount of organic material going to landfill by 2030¹. Further, to reduce impacts of climate change, the Victorian Government has committed to reduce the state's greenhouse gas (GhG) emissions by 45-50% below 2005 levels by 2030, 75-80% below 2005 levels by 2035, and achieve net zero

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emissions by 2045. WMRR believes that these commitments to reducing waste and moving towards a circular economy must be captured across all levels of government policy, regulation and planning processes.

However, whilst the WARR industry presents obvious opportunities for the state to transition towards a circular economy, minimising the impacts of climate change, through reduced reliance on virgin materials, and increased recovery and remanufacturing infrastructure, there are many constraints that exist within current systems that must be considered.

The Draft Strategy

[Victoria's 30-year infrastructure strategy](#) provides a practical roadmap for the next five (5) to 30 years to inform Victorian Government planning across all sectors including housing, energy, transport, health, social infrastructure, and the environment. The 2025 draft 30-year strategy includes 50 priorities - 43 draft recommendations and seven (7) draft future options - and is guided by the following six (6) objectives:

1. Victorians have good access to housing, jobs, services and opportunities
2. Victorians are healthy and safe
3. Aboriginal people have self-determination and equal outcomes to other Victorians
4. Victoria has a thriving natural environment
5. Victoria is resilient to climate change and other future risks
6. Victoria has a high productivity and circular economy.

The infrastructure strategy, and the government's response, arguably provides a good indicator of where government infrastructure investment and policy priorities are likely to be over the coming years and longer term. WMRR understands that the draft recommendations have been scoped to address the major problems and opportunities in each infrastructure sector, which were analysed alongside existing Victorian Government policy directions, and other policies and external developments.

However, it would appear that in preparing these priorities, Infrastructure Victoria has not aligned with the extensive commitments made over the last five (5) to transition Victoria to a circular economy, with the introduction of the *Circular Economy (Waste and Recycling) Act 2021*, the *Victorian Recycling Infrastructure Plan*, Victoria's Big Build and Recycled First policy, and the release of the circular economy plan, [Recycling Victoria: A new economy](#). Victoria also legislated net zero interim targets under the [Climate Action Act 2017](#) and has implemented a *Climate Change Strategy*. These all recognise the increased recovery and reuse of materials and reduced use of virgin resources (including energy savings), and reduced transport of materials between precincts as being key outcomes for a circular economy for Victorians.

Regrettably, the Draft Strategy only reflects these broad environmental and economic goals in three (3) of the recommendations:

- Recommendation 24: Increasing the uptake of recycled materials in infrastructure as a means to reduce greenhouse gases (which is attributed to objectives 4, 5 and 6)
- Recommendation 38: Prepare for more waste and recycling infrastructure in vicinities that enhance opportunities for circularity (which is attributed to objectives 4 and 6 only).
This recommendation speaks to making recommendations for the location of recycling infrastructure so that it can be included in the updated *Victorian Recycling Infrastructure Plan* ("VRIP"). Waste and recycling sites will be planned together with other commercial and industrial land, with changes to planning controls to allow for facilities where they are needed.
- Recommendation 35: Prepare and publish infrastructure sector plans to shape Victoria's cities for the next 15-20 years. Seven (7) sectors have been identified, including Waste and Resource Recovery. An agreed set of assumptions for future population, jobs and land use for more compact cities will be used

to develop an infrastructure sector plan as soon as possible which will be used to decide infrastructure project funding. It is appreciated that approximately \$5 million will be allocated to the development of each sector plan (which is attributed to objectives 1 and 6).

Whilst these recommendations are not unwelcome, WMRR believes the Draft Strategy does not go far enough in aligning the essential nature of the WARR industry with government infrastructure investment and policy priorities. The recommendations position increased WARR infrastructure and increased uptake of recycled materials as aspirational, rather than necessary, and in some ways regresses from Victoria's *Recycled First* policy. This is despite the state committing to legislated incremental net zero targets, embedding the *Circular Economy Act 2021* and issuing its [Circular Economy Market Report](#). The significance of Victoria's reportable targets should see the WARR industry identified as an essential service that connects multiple sectors in the state's infrastructure strategy. Hence, our key recommendation would be to take a systems approach to the Draft Strategy by noting the *essential* nature of the WARR industry in the Strategy Objectives - particularly with respect to Objective 1 (Victorians have good access to housing, jobs, services and opportunities) and Objective 6 (Victoria has high productivity and circular economy).

The Draft Strategy does not identify waste management and resource recovery as an essential service to householders and businesses, or acknowledge the interconnectedness of the WARR industry across broader supply chains enabling the use and remanufacture of secondary raw materials within the economy. In WMRR's view, the constraints of the status quo cannot be addressed without making this link, including the system within which we operate. These constraints include existing policy and regulatory settings pertaining to recycled content thresholds, product design standards, extended producer responsibility and sustainable procurement, which do not enable the virgin and recovered materials to compete on an even playing field. Given the role of the infrastructure strategy as a document to guide the Victorian Government's policy and investment decisions, it would be prudent to have this link explicitly made within the objectives of the Draft Strategy.

Why WARR needs to be articulated as an essential service for Victorians

The link between WARR and *Objective 6: Victoria has high productivity and circular economy* is made well enough within the Draft Strategy with the WARR related recommendations aligned to this as its primary objective, or in the case of recommendation 24 (reduce GhG emissions from infrastructure) as an additional objective. However, these recommendations do not make any reference to the WARR industry providing an essential service to Victorians.

In WMRR's view, "*Objective 1: Victorians have good access to housing, jobs, services and opportunities*" should be expanded to also include access to necessary waste services. Whilst recommendation 38 talks to identifying locations for recycling infrastructure to be included in the updated VRIP, access to essential waste services should be identified as a key consideration alongside other essential services like health, roads/ transport and education, which are prioritised in the strategy with multiple recommendations pertaining to these sectors.

Currently, the Draft Strategy's first objective aligns recommendations for housing and associated infrastructure such as childcare, transport, health and roads. The household service standards are soon to be implemented across Victoria, reflecting the overarching desire to standardise residential collections and provide a high quality, consistent service to households. It follows that the government must take responsibility for driving the market conditions required for suitable resource recovery operations to be accessible and affordable for all Victorians when strategising for increased housing capabilities. This requires consideration of:

- The mix of housing forms and types - which will have a direct impact on the methods and frequency of waste collection services, and available disposal and processing capacity in the vicinity or accessible via suitable transport routes will directly determine access and affordability of these essential services. This is crucial to consider for regional areas, as we have seen in multiple jurisdictions that residents in

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remote and regional locations can lack access to resource recovery services, resulting in either higher waste services charges being necessarily applied by Councils (to cover the transport costs) or the service being deemed too expensive and impracticable for Councils to deliver at all.

- WARR technologies, capital infrastructure and additional employees and energy, are required to recover and recycle being more expensive than disposal (i.e. landfills), necessitating strategic and collaborative procurement to assist in economic viability not just for industry but also the community. Significant investment is often required to implement technologies and upgrade existing facilities, or build new facilities to receive discarded materials to create marketable end-products. Therefore, economies of scale are a crucial consideration. It follows that for the WARR industry, opportunities for regional councils to engage in collaborative procurement that amalgamates collected material, enabling contracts to prescribe both certainty of term and security of volume would be a beneficial outcome. However, this requires considerable thought in the planning stages as to where infrastructure can be strategically located to best service these regional communities.
- Material volumes received at WARR facilities, require a level of security over a long term, with large scale tonnages often sought to be economically viable. For Victoria to foster a circular economy with secure material flows into WARR facilities that have the confidence and backing of investors, directed efforts must be made by the Victorian Government to provide the secure market conditions for materials for WARR facilities to operate. In plain terms, this means that the government must take action to enable WARR facilities to be developed in locations that have the appropriate scale to service a circular economy in a cost-effective manner, and this includes clear and accessible end markets. Without having the right market conditions for operators to deliver a cost-effective service, efforts to drive a circular economy in Victoria will fall flat as the material will be collected without an appropriate or affordable recovery option available. This is why consideration of WARR infrastructure viability needs to be considered at the initial stages when planning for *essential* services for Victorians.

It is therefore paramount that, waste and material flows are duly considered and mapped out when making recommendations for facility locations for the updated VRIP – with the focus being on the need to provide an essential service for all Victorians.

In relation to increasing the uptake of recycled materials, this is addressed by the Draft Strategy in relation to reducing GhG emissions (recommendation 24). However, procurement of recycled materials is another area that is inextricably linked to improving access to housing (and infrastructure). There is a significant opportunity for Victoria to reinforce government commitment to integrate principles of designing for circularity throughout the planning and building stages of new developments throughout Victoria, such as through a preference for sustainable procurement via the use of recycled building materials, as well as ensuring that adequate provisions allow for the storage, collection, aggregation and processing of waste materials in proximity to their sources.

Ideally, all greenfield development would reference design to avoid generation of waste, use of recycled (as opposed to virgin materials) during the build lifecycle, and planning for the logistical management of waste and resources with a view to optimise source separation of recoverable materials. It is recommended that new builds and developments are considered alongside the *Recycled First Policy* program, with new road infrastructure preferencing recycled materials as part of (or complementary to) Victoria's *Big Build*.

In addition, WMRR also contends there is scope to articulate the goal of creating a safe circular economy within "*Objective 2: Victorians are healthy and safe*" through commitments to reducing waste and pollution, and ensuring products that enter into Victorian markets are safe for recirculation through the provision of appropriate infrastructure and access to affordable waste services to keep communities and environments clean.



Given that Victoria's 30-year infrastructure strategy provides a practical roadmap for the policies, reforms and projects that can deliver many benefits to Victoria's communities, economy and the environment over the coming decades, WMRR hopes that the final strategy will note the interconnectedness of the WARR industry with multiple objectives of the Draft Strategy.

How else the Victorian Government could support recycling of hard-to-recycle items such as soft plastics, batteries, solar panels and textiles?

WMRR notes this question was asked in relation to recommendation 38 on the consultation website. Generally speaking, WMRR supports mandatory product stewardship for problematic materials, 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 simply an end of pipe, collection and aggregation scheme. Instead, funded, end to end Extended Producer Responsibility schemes that include product design standards and market offtake are required. In WMRR's view this requires legislation as the voluntary industry-led schemes for these problematic products do not go far enough to close the loop with apportioning responsibility to the producers of these products for their safe recirculation. Hence, this may not be for Infrastructure Victoria to consider further in their Draft Strategy, as the collection infrastructure to facilitate aggregation of the material is not the root cause of the problem. Ensuring that the products are designed for circularity and that their secondary materials have end-markets is what needs to be addressed. Furthermore, as such products have a national market, it would be prudent for a national approach to be taken to manage these problematic materials.

For example, WMRR supports the adoption by all states and territories of the NSW *Product Lifecycle Responsibility Act* 2025 rather than supporting existing voluntary industry led schemes. The NSW Act provides a pathway towards national mandatory product stewardship for embedded batteries. 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.

WMRR reiterates its earlier comments that the WARR industry is not recognised by the Draft Strategy for the essential role it plays in the Victorian community, economic and environment. Broader government commitments to keeping materials within Victoria safe for recirculation (and sustainably designed) would support the objectives of the Draft Strategy for Victorians are healthy and safe (Objective 2), Victoria has a thriving natural environment (Objective 4), Victoria is resilient to climate change and other future risks (Objective 5) and Victoria has a high productivity and circular economy (Objective 6).

How can the Victorian Government support industry to use more low-carbon and recycled materials in infrastructure projects?

WMRR notes this question was posed on the consultation website in relation to recommendation 24. The cost and accessibility of recycled products is the biggest challenge. In terms of developing strong end markets for recycled materials – which could contribute meaningfully to reducing the impacts of climate change by displacing the emissions associated with extracting and sourcing virgin materials – the biggest challenge is the lack of economic incentives for those in supply chains to choose recovered materials. The economies of scale of global markets, and the lack of local reprocessing infrastructure can result in significant cost differentials between choosing a recycled product over a new one. As noted in the Draft Strategy, Victoria is already doing

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some work to redress this imbalance, focusing on roads infrastructure supply chains through the Recycled First policy and ecologiQ. Ideally, more would be done to incentivise the procurement and demand for recycled materials. WMRR has advocated for increasing recycled content thresholds across *all* government procurement and incentivising investment in new facilities and technologies (such as continuing the Recycling Modernisation Fund).

Ideally, a combination of decarbonisation and circular economy reporting and incentives could further support uptake of recycled materials in infrastructure projects. There is currently a lack of data on the emissions profile for remanufacturing processes demonstrating the measurable impacts of utilising recovered materials instead of 'new'. The traditional thinking that emissions are something to be 'captured' at the end of a process, rather than actively reduced through choosing alternative pathways (such as utilizing recovered materials in supply chains rather than sourcing virgin products) is one of the main challenges for the WARR industry.

According to the Ellen Macarthur Foundation's 2021 paper [Completing the Picture: How the circular economy tackles climate change](#), 45% of emissions are associated with making products. 2022 emissions data demonstrates that Victoria is the third largest state or territory contributor to Australia's emissions (19.6%). Burning coal and gas in power stations to generate electricity accounts for 48% of Victoria's emissions. The utilisation of materials from the resource recovery sector i.e. remanufactured/ reprocessed and recycled materials instead of virgin materials necessarily mitigates the initial production energy expenditure associated with manufacturing. For example, recycling aluminum significantly reduces carbon emissions compared to producing it from virgin materials, requiring only about 5% of the energy and resulting in a substantial reduction in GhG emissions.

As per WMRR's earlier comments, explicitly noting this interconnectedness of the WARR industry across supply chains within the objectives of the Draft Strategy would further support sustainable material product choices to replace virgin materials.

WMRR welcomes the opportunity to further discuss the Draft Strategy and trust that its comments will be given due consideration. Please contact the undersigned if you wish to further discuss WMRR's submission.

Yours sincerely

Gayle Sloan
Chief Executive Officer